

ial

Issues in Applied Linguistics

Volume 1 Number 1 • June 1990

MAIN ARTICLES

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Alastair Pennycook

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Lyle F. Bachman, Fred Davidson and John Foulkes

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Putting PUT to Use: Prototype and Metaphorical Extension
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SPECIAL FEATURE

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Maria M. Egbert

Reviews by
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Stephen Adewole, Cheryl Fantuzzi

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This issue
is dedicated to the memory of

J. Donald Bowen

March 14, 1922 - January 23, 1989

Professor Emeritus
Department of TESL & Applied Linguistics
UCLA

and

a pioneer in applied linguistics research

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Issues in Applied Linguistics

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A Journal Is Born

As the growing field of applied linguistics develops new areas of interest and new graduate programs, a concomitant need arises for more channels of communication through which colleagues and researchers can publicize current research and exchange ideas. In response to this obvious need for additional avenues of publication, and especially to encourage students to publish their work, the graduate students of the Department of TESL & Applied Linguistics at UCLA have undertaken a new semi-annual journal, *Issues in Applied Linguistics*. Since the journal is partly funded by the UCLA Graduate Student Association, at least 66% of each issue's contributions will be authored by students. Thus, in addition to providing established applied linguists with another outlet for research publication, the journal will be an ideal vehicle for student essays, research papers and articles which are based on theses and dissertations.

It is with great pride and enthusiasm, then, that the Department of TESL & Applied Linguistics salutes its graduate students in launching this new publication.

John Schumann, Chair
Department of TESL & Applied Linguistics
University of California, Los Angeles

The Unsung Melodies of Applied Linguistics

Interdisciplinary work, so much discussed these days, is not about confronting already constituted disciplines (none of which, in fact, is willing to let itself go). To do something interdisciplinary it's not enough to choose a "subject" (a theme) and gather around it two or three sciences. Interdisciplinarity consists in creating a new object that belongs to no one.

Roland Barthes
Bruissement de la langue

Applied linguistics has now emerged as an interdisciplinary field of inquiry with its own authority and rhetoric having spread to many areas where "language" has become an object of description, critique and evaluation. In the last three decades, the professional enterprise of this field has changed (but regrettably, not for some) from its early agenda of the "scientific" study of the principles and practices of foreign language teaching and learning as well as the seeking and finding of better methods, materials and testing, in ESL mainly, to a more complex, diverse endeavor which analyzes past and present practices out of a commitment to future possibilities. The field now combines and fuses, from seemingly incompatible areas of inquiry, knowledge which not only changes and shapes investigations that applied linguists undertake, but which also helps situate the field in a unique domain and creates new knowledge.

But, as Barthes (1986) argues, by merely using knowledge from several disciplines to inform our activities we are not truly being interdisciplinary; applied linguistics needs to have its own distinct flavor and specialty. In order to do this, however, applied

linguists need to re-examine their dependence on Western science's search for universal principles with objective methods, a search which has excluded certain expressive modes from its mainstream canon, localizing them in marginal islands of research or in disciplines such as film and fiction. Among the expressive modes that have been pushed to the periphery during the last three decades are cultural specificity and subjectivity.

For example, triggered by Chomskian linguistic theory, applied linguists have produced mountains of acquisition research, comprehensively ignoring "linguistic variation as the substance" (Bickerton, 1973, p. 643) of inquiry and relegating it instead to the periphery of language study. Some second language acquisition research has even treated interlanguage phenomena as "inferior, ... gibberish," or as "mindless ungrammatical chatter" (James, 1985). Finally, language pedagogy has suffered from a similar bias. There have been numerous attempts to find a single universally acceptable teaching method (from the audio-lingual method to the communicative and the natural approaches), with uneven success across diverse cultural settings, whereas more culturally appropriate methodologies have been remarkably successful (see, e.g., Sharp & Gallimore, 1989).

In addition, applied linguists who generally employ experimental methods, preferring to reduce people, learning and objects with unique identities to statistics and diagrams, attempt to observe and evaluate from a detached, transcendental position. Moreover, and regrettably, when subjective experiences and observations form a part of these inquiries (which is rare), they are included apologetically with expressions of concern that personal opinions, feelings and beliefs have no true place in applied linguistics research.

To call for the re-instatement of culturally specific and subjective voices, the unsung melodies of applied linguistics, does not, however, mean one must advocate the extreme position of privileging one set of voices over the other. While there is a need for these other voices to be heard, they would of course have to be subject to the same spirit of critical evaluation as any other position would be in the field. Applied linguistics should therefore promote the cooperation and collaboration of voices and offer a perspectival relativity in which no one theory has the final word. What I am suggesting is the Bakhtinian notion of *polyphony* in which all voices remain independent yet combine in a unity of order higher than mere homophony. As in Tyler's (1986) metaphorical

characterization, polyphony can also evoke not only pictures and seeing, sequence and line, but also sound and hearing, simultaneity and harmony.

The epistemological implication of such a position is that applied linguists should perhaps not seek a unified Popperian realm of truth, but rather favor a Feyerabendian dissatisfaction with method because any epistemology must be seen only as an historical event and as a distinctive social practice defined differently by every culture. This is not to argue that applied linguistics, therefore, needs an additional theory of indigenous epistemologies or a new epistemology of the Other in every culture in which applied linguistics is practiced. Instead, what is needed is that the West be anthropologized -- shown "how exotic its constitution of reality has been," (Rainbow, 1986, p. 41) how those domains most taken for granted as universal are historically peculiar and how claims to truth are linked to cultural and social practices -- just as non-Western cultures have been for so long.

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We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

T.S. Eliot
Little Gidding

In this inaugural issue of *Issues in Applied Linguistics*, we present polyphonic voices from our interdisciplinary field through four main articles, an interview and six book reviews. Our ten male and six female authors are from different geographical locales: Canada, the Federal Republic of Germany, India, Japan, Nigeria, the United Kingdom and the United States. They represent both students and faculty from diverse areas of specialization: bilingual education, cognitive psychology, cognitive science, cultural politics, language teaching, language testing, linguistics, literature, second language acquisition and speech communication. Moreover, the four main articles represent a range of voices from the positivist and interpretive research traditions.

Alastair Pennycook's paper forcefully argues the need for a critical applied linguistics for the 1990s. He points out the limitations imposed by asocial, ahistorical and apolitical modes of inquiry on the domain of second language education and urges us to seek a critical applied linguistics that is responsive to its social, cultural and political contexts. Through a brief survey of critical developments in other fields of inquiry, including social science and education, Pennycook suggests that applied linguistics is lagging behind other disciplines in adopting new ways of thinking about what it studies and how it goes about doing its work. His critique places him among those who are concerned with alternative programs of research, with the humanization of pedagogy, and with the feminist and post-colonial condition.

Lyle Bachman, Fred Davidson and John Foulkes report on a two-year study of performance on ESL proficiency tests. Their comparison of test takers' abilities as measured by the University of Cambridge Local Examinations Syndicate (UCLES) and Educational Testing Service (ETS) test batteries shows that the abilities measured by both test batteries are, to a large degree, similar for the sample of subjects in the study. This finding is important because the two organizations arguably represent opposing viewpoints in test construction and validation: linguistic and subjective procedures (UCLES) and psychometric and objective procedures (ETS). They conclude their paper with future plans for triangulating information from test performance, test content analysis and test takers' background, using both subjective and objective methods. These plans place the authors in a newly emerging approach to test construction and validation, which uses more information in its analyses than previous approaches have done.

Don Rubin, Rosemarie Goodrum and Barbara Hall argue that ESL learners from oral-based cultures need not completely divorce themselves from their native rhetorical patterns when they learn to write for academic purposes in English, but can instead learn to capitalize on many oral-based discourse strategies in their second-language written communication. This position opposes views based on the interference model which has encouraged the suppression of native linguistic and rhetorical abilities in order to achieve competence in a target culture's discourse. The authors support their thesis not only with arguments in favor of cultural pluralism, but also with findings from research on native language transitions from orality to literacy. Their work places them among

others who are concerned with writing instruction for minorities and the socially disadvantaged, literacy among children and adults, and cross-cultural rhetoric and discourse.

Yasuhiro Shirai investigates the relationship between prototype and frequency of use with the polysemous basic verb PUT. Having derived the prototype from native speakers of English, he compares this prototype with the meanings of PUT as used in an oral and a written corpus of English. Shirai's major finding, that the prototype of PUT does not correspond to the frequency of actual use, has implications both for prototype theory and for the status of native-speaker intuitions in lexico-semantic analysis. This study places the author's work in the growing areas of data-based semantic analysis and corpus linguistics.

Maria Egbert's interview with Evelyn Hatch, professor emerita of the UCLA Department of TESL & Applied Linguistics, offers us a view of the personal side of a researcher, author and teacher who has otherwise been known mainly through her writing in second language acquisition, psycholinguistics and research methodology. In addition, Evelyn shares her perspectives on being both a female researcher and an educator of future researchers. She also comments on current research in a number of areas including language processing and the linear additive model.

The six reviewers featured in this issue evaluate books from a wide range of areas in applied linguistics: second language acquisition and universal grammar (Donna Lardiere), cognitive psychology and learning strategies (Swathi Vanniarajan), bilingual education and literacy (Carol Benson), literature in ESL pedagogy (John Povey), linguistics (Stephen Adewole) and cognitive science (Cheryl Fantuzzi).

In closing, may I urge our readers to send in their views on the two questions we pose in our special features section for the next issue. These contributions will add more polyphonic voices, and, if we accept Rorty's (1979) suggestion that free communication and civilized conversation are the ultimate goals in inquiry, we will have made an excellent beginning. Finally, as Eliot wrote in *Little Gidding*, though probably with insufficient optimism for the positivists among us, we will "arrive where we started" and return to these fundamental questions once again next time.

June 1990

Antony John Kunnan
Editor

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Antony John Kunnan, Editor of *JAL*, is a doctoral student in applied linguistics at UCLA. He holds masters' degrees in literature and applied linguistics, has co-authored five academic ESL texts, has taught applied linguistics, ESL and literature, and has also worked as a freelance journalist. Currently, he is a research associate on a joint UCLA-University of Cambridge language testing project.

Towards a Critical Applied Linguistics for the 1990s

Alastair Pennycook
Ontario Institute for Studies in Education

Like many other areas of the social sciences, applied linguistics developed into its present form during the age of high modernism. Yet, while many other areas are going through a difficult stage of reappraisal in response to postmodern critiques of modernism, applied linguistics has remained to date steadfastly bound to its modernist paradigm. The significance of the challenges to this mode of thinking, however, suggests that applied linguistics urgently needs to look afresh at its view of language and research, and to acknowledge new thinking on discourse, the subject, culture, objectivity and knowledge. Applied linguistics also needs to address the fundamental limitations of asocial, ahistorical and apolitical modes of inquiry for the highly political domain of second language education. What I am arguing for here is a pedagogically and politically engaged critical applied linguistics which is responsive to its social, cultural and political context and which uses a notion of transformative critique as its main mode of inquiry.

INTRODUCTION

We live in a world marked by fundamental inequalities: a world in which 40,000 children die every day in Third World countries; a world in which, in almost every society and culture, differences constructed around gender, race, ethnicity, class, age, sexual preference and other distinctions lead to massive inequalities; a world increasingly threatened by pollution and ecological disaster. I believe that to understand such inequalities we need to go beyond a view of politics as residing in the hands of nation states or "political leaders" and to understand ourselves within a set of global power

relations. While it is therefore important to look at international relations, we should also be wary of reducing this to a socioeconomic description of world market forces. Rather, I suggest we need to look at the cultural and ideological bases of our work and lives in an effort to understand how they may be supportive of larger inequalities.

As applied linguists, we are involved in language and education, an intersection between two of the most fundamentally political aspects of life. I see societies as inequitably structured and dominated by hegemonic cultures and ideologies that limit the ways in which we can think about the world and, thus, the ways in which we can move towards changing it. I am also convinced that the learning of languages is closely bound up with both the maintenance of these inequalities and with the conditions needed to possibly change them. It is incumbent on applied linguists, therefore, to examine the ideological basis of the knowledge we produce. As Phillipson & Skutnabb-Kangas (1986) argue, "applied linguists help in *reproducing the material conditions for exploitation*, in a world characterized by unequally shared prosperity, waste, militarization, injustice, famine and disease" (p. 118). Applied linguists, they suggest, need to explore the ways in which our work supports the increasingly sophisticated forms of physical, social, and above all ideological coercion. As an educator and an applied linguist, therefore, I feel that my own project must always be both pedagogical and political.

In the hope that the addition of this new journal to the field of applied linguistics will allow and encourage the emergence of a greater variety of opinions and voices than can be found in what are today the important journals in the discipline, I have taken the rather presumptuous step of trying to write a where-are-we-now? and where-are-we-going? article. Unlike most articles of this type, however, which tend to dwell in self-congratulatory style on the many achievements made to date before describing the holes which need to be filled by more research, this article will take a far more critical attitude. I wish to argue that applied linguistics could do with a major overhaul, a rethinking of our work in response to the ideas I have outlined above. One of the major problems with which we are facing is that the predominant paradigms of applied linguistics offer no framework for exploring the politics of language education. What I wish to do in this brief article is to deconstruct some of the basic tenets of applied linguistics with a view to showing how they are located within a very specific modernist

conception of the world. Since it is also my view that we need to develop means of conducting transformative critiques, I shall try to show how what I shall call a *principled postmodernism* can help us move, in the first instance, towards a *critical applied linguistics*. What I shall argue for, then, is a critical approach to applied linguistics which is far more responsive to social, cultural, and political concerns than has been the case with most work to date. In short, I shall argue for work that always looks both to critique and to transform, that seeks to involve itself in a moral and political project for change.

LANGUAGE AND RESEARCH IN APPLIED LINGUISTICS

In this section, I shall try to show how particular aspects of applied linguistics are very much children of the modernist era. While my views here will be necessarily simplified and overgeneralized, I think it is important to try to make some sort of broad characterization of the field. First of all, while many other areas of the social sciences are questioning their epistemological bases, applied linguistics appears to be continuing untroubled with its firm beliefs in the basic tenets of European Enlightenment thought and its two subsequent spinoffs, positivism and structuralism. This state of mind entails a continued faith in an apolitical, ahistorical view of language; in a clear divide between subject and object and thus in a notion of objectivity; in thought and experience prior to language; in the development of models and methods according to scientist principles and the subsequent testing of their validity by statistical means; in a belief in cumulative progress as a result of this gradual addition of "new" knowledge; and in the universal applicability of rationality and the truths and theories that it produces. I shall return to a discussion of criticisms of these views in the next section. Here, I shall endeavor to demonstrate how the predominant views of language and research in applied linguistics are related to these beliefs.¹

A definition of language, as Williams (1977) has remarked, is always, implicitly or explicitly, a definition of human beings in the world. It is crucial that we understand both the origins of the particular view held predominantly in the West about language as well as the implications of this view for learning and communication. First, we should be aware that the notion of language as it grew up in Europe was intimately tied to the growth

of the nation state. As emerging states sought to wean their citizenry away from the church and to strengthen their hold over diverse groups of people by developing notions of a homogeneous ethnicity, the development of the notion of a language came to take on fundamental importance. This political construct was to take on even greater significance in the 19th century with the coming of industrialization and colonialism. This era saw attempts to invent a standardized language (Crowley, 1989) and to develop mass education as a powerful means of social control. As Harris (1981) describes the process, "the language myth in its modern form is a cultural product of Post-Renaissance Europe. It reflects the political psychology of nationalism, and an educational system devoted to standardizing the linguistic behavior of pupils" (p. 9). In the late 19th and 20th century, this view of language was taken up by linguistics and given the solemn blessing of a science.

The invention of a standardized version of a language is particularly important, for it stands at the center of one of the great myths of modern linguistics: the belief that there was a shift from prescriptive to descriptive linguistics in the 19th and 20th centuries. It is a commonplace assertion in most linguistics texts that the growth of scientific linguistics marked a change from attempts to stipulate what correct language use should be to the objective description of languages. As Crowley's (1989) extensive study of these claims shows, however, no such shift from prescription to description in fact took place: "The objectification of language ... is a construction of the history of the study of language in Britain that cannot be supported by the evidence ... a discursive construction that serves particular social and rhetorical purposes" (pp. 13-14). Indeed, linguistics has been engaged as much in the creation and definition of standards as was the case in the supposedly prescriptive era, a process which, as Bourne (1988) has pointed out, reached its most powerful form in the generativists' attempt to locate language as a biologically determined construct in each isolated individual.

Other implicit assumptions have accompanied this view of language. Morgan (1987) suggests that the predominant understanding of language has been "correspondence theory" which assumes a one-to-one correspondence between objects, words and thoughts. Although this representationalist view of meaning was challenged by structuralists with their belief that meaning was determined by the internal relationships within a structure, it has remained the predominant way of viewing language. Similarly,

Harris (1981) argues that the "language myth" is based on two interrelated fallacies. The first is the "telementational" fallacy, whereby linguistic knowledge is taken to be a matter of knowing which words stand for which thoughts, words, therefore, being symbols created by humans for transferring thoughts from one mind to another. To achieve this, the second, the "determinacy" or "fixed code" fallacy, is invoked, whereby a language is taken to be a fixed and agreed-upon code for language communities to express their ideas.

Applied linguistics has also been greatly affected by the structuralist paradigms that have generally held sway since Saussure. The particular distinctions set up by Saussure marked an important turning point in the treatment of language: privileging the synchronic over the diachronic, the internal, structural relationships over external relationships, and assuming a dichotomy between the individual and society. The domination of these distinctions on 20th-century thought about language and language acquisition have resulted in the divorce of these studies from historical, social, cultural or political questions. The dualistic thinking of the European Enlightenment, strengthened by Saussure's distinctions, has thus led to a problematic divide between the individual and society, between culture and society, and between culture and cognition. Structuralist and positivist views have tended to stress society and cognition as the only areas amenable to objective research, thus focusing on the individual in cognitive isolation, for example, or ideal speech communities, while failing to acknowledge both culture as the primary signifying system by which we make sense of the world and language learning as taking place within relationships of power.

In the next section, I shall suggest a different conception of language, but first I shall indicate some of the implications for applied linguistics of the view outlined above. It is important to note the legacies of this Eurocentric view of language: both linguistics, in its presentation of family trees (Nayar, 1989), for example, and applied linguistics, especially in its language planning policies (Jernudd, 1981), have developed models of language and language use that reflect more a European view of the world than any other reality. In addition, the legacy of an ahistorical and apolitical approach to language centering on the notion of a rational individual, a view bolstered by the use of cognitive psychology as a basis for much psycholinguistic work, has led to conceptions of language and communication in which there is no space for the consideration of

questions of power and inequality. An apolitical and ahistorical view of language, after all, cannot account for competing struggles over meaning. Moreover, the telementational and fixed code fallacies that underlie much work in applied linguistics have led to a narrow emphasis on functionalism and communication. This view has tended to reduce language to a system for transmitting messages or for getting things done. Speaker A encodes ideas into the language and transmits the message to speaker B who then decodes the message. What this conception of language lacks is an understanding of language as an ideational signifying system that plays a central role in how we understand ourselves and the world.

Two problems connected to this merely functional view of language are the trivialization of content and an overemphasis on communicative competence. Language teaching has long had to struggle with the question of content: i.e., apart from language itself, what is a language lesson to be about? Unfortunately, with the spread of communicative language teaching, the belief grew up that as long as a message was passed from A to B, learning could take place. This led to an emphasis on any activity that would encourage one student to pass some form of message to another. These "interactive activities" and games came to dominate the language classroom and led to the ever-increasing trivialization of language learning and learners. While this clearly has important pedagogical and social implications, it should also, as Mukherjee (1986) has pointed out, be seen for its political implications:

In ESL the puerile structure of content was not and is not about transmission of skills or critical understanding of concepts. It is geared to receiving situational instructions and learning how to assimilate as an 'object' into a structural order, into a value order, into a cultural order, into a linguistic order and, above all, into a racist order. (p. 46)

Indeed, as long as language teaching continues to trivialize itself, refusing to explore the cultural and political aspects of language learning, it will have more to do with assimilation than with any notion of empowerment.

The second closely connected problem is the notion of communicative competence. While the addition of other competences to the narrow view of linguistic competence -- sociolinguistic, strategic, paralinguistic and discourse competence -- have helped broaden the notion of communicative competence, the central issue of social appropriacy has remained isolated from the

question of the political desirability of language forms. Bourne (1988) argues that functional language teaching reworked the diverse possibilities in the notion of communicative competence into the transmission of fixed norms of appropriacy. And Peirce (1989) has suggested that "the teaching of English for communicative competence is in itself inadequate as a language-teaching goal if English teachers are interested in exploring how language shapes the subjectivities of their students and how it is implicated in power and dominance" (p. 406). Thus, if we teach for communicative competence without exploring both how language use has been historically constructed around questions of power and dominance as well as how in everyday usage it is also always involved in questions of power, we will once again be developing a teaching practice that has more to do with assimilation than empowerment.

Having sketched out some of what I see as the questions we need to raise about the received notions of language in much of applied linguistics, I would like now to look in particular at the implications of the predominance of the positivist paradigm in applied linguistic research. Books on applied linguistics often seem obsessed with methods and models. I have already discussed at some length the implications of the notion of methods elsewhere (Pennycook, 1989), so I shall only suggest here that similar objections might be raised against the proliferation of language learning models. The process of fixing a view of learning into diagrammatic form and then proceeding to try to test its validity according to the positivist methods of quantitative experimentation is once again a dangerously reductive move. While a reasonable case might be made for the use of models and methods as heuristic rather than ontological categories, that is, as temporary understandings through which we are passing, their canonization in the literature of applied linguistics has, on the contrary, accorded them the status of complete and adequate theories that can be applied to diverse settings (Nayar, 1989). This tendency to first technologize the learning process, then universalize the models by appealing to the objectivity of research methods, has long been a facet of modernist thinking.

It is probably true that applied linguistics is proud of its growing research tradition. I would suggest, however, that there are probably stronger grounds for concern than for celebration. First, and foremost, is the problem of the predominance of positivist, quantitative forms of research. In a review of research articles in *TESOL Quarterly*, Henning (1986) reports as a laudable development that the proportion of qualitative to quantitative

research had shifted from 88%:12% in 1970 to 39%:61% in 1985. While it is doubtless useful that, where appropriate, better research methods have been used, it is, I believe, highly problematic to celebrate this increasing domination of quantitative research. Research has tended to concentrate on proof rather than understanding, yet it is something of a pointless exercise to use sophisticated statistical means to try to show a causal relationship between variables about which we have very little understanding (Mitchell, 1985; Van Lier, 1988).

In a rarely cited article written over ten years ago, Ochsner (1979) argued for a balanced approach to research that acknowledged not only the nomothetic, positivist tradition, but also a hermeneutic approach. Unfortunately, his advice has gone unheeded as the steamroller of positivism has come to dominate so much of the work in applied linguistics. While discussions of research usually acknowledge that qualitative research should be complementary to quantitative, what in fact happens is that qualitative research is used in a minor service capacity to the all-important quantitative: it is seen as useful for defining categories and variables, but not as an end itself. This inequity has serious implications because qualitative research has been ignored, underdeveloped and misunderstood, it is often equated with a limited conception of ethnography, which, as Watson-Gegeo (1988) has pointed out, on the one hand ignores many other qualitative research possibilities, and, on the other, has tended to caricature rather than characterize classrooms.

Although the nativist drive in second language acquisition (SLA) research to establish the 'natural' (exemplified by Krashen's attempts to define natural acquisition, a natural order of learning and a natural method for teaching), with its distinctly anti-classroom and anti-teacher agenda, is fortunately now in decline, much of SLA research still has little to say about classroom language learning (Van Lier, 1988). Indeed, despite claims to be dealing with classrooms, most of the research has been quasi-experimental, with students in small groups performing tasks set by experimenters. Such limited, positivist experiments, operating in the belief that language learning can be accounted for by quantitative measures of 'input' or 'interaction' (see Aston, 1986), have ignored basic sociolinguistic questions by comparing, for example, question patterns between pairs of strangers with question patterns between teachers and students in classrooms.

Research in SLA, through quantitative measures of hypostatized cause and effect relations in quasi-experimental settings, has treated the classroom as a site of mere linguistic transaction rather than trying to understand it as a complex locus of social interaction. Research exploring the social, cultural and political dynamics of second language classrooms has been minimal. Fundamental questions, such as the role of gender in classroom interaction and language acquisition, have thus received minimal attention (see Holmes, 1989, however, for work in this area). Furthermore, as Nayar (1989) has suggested, much of the research which has been done is completely inapplicable to most of the world, since it is conducted in utterly different circumstances from those in which most teachers and students find themselves. This would not be such a serious problem if it were not the case that North American research, with the universalizing tendencies of modernity, all the backing of prestigious universities and the supposed rigor of positivist methods, is exporting its findings as a form of universal truth to the rest of the world.

I could go on in this critical vein, but I feel by now that my central points have been made. What I have been trying to illustrate here are the severe limitations of most work in applied linguistics to date. These I have characterized as based on the tenets of modernism, especially its emphases on universal, foundational, and totalizing theories as well as on teleological, progressivist and positivist understandings of the world. These shortcomings have implications not only for applied linguistics but for students and teachers of ESL around the world. To the extent that these ideas are located within the modernist paradigm which has played such a predominant role in maintaining social and cultural inequalities, and to the extent that English language teaching, as Phillipson (1986) has shown, is intimately linked to neocolonialism, we as applied linguists would do well to look to other ways of conceptualizing the modern world. In the next section I shall give a brief overview of what such a principled postmodernism might entail before illustrating how critical projects have been taken up in fields related to applied linguistics.

AN EPISTEMOLOGICAL CRISIS AND PRINCIPLED POSTMODERNISM

In the previous section, I outlined some of what I see as the basic tenets of applied linguistics (with respect particularly to views

on language and research) and tried to show how these views are located within a very particular view of the world. In this section, I would like to sketch out what I see as the major challenges to modernist thought, which constitute a constellation of ideas that I am here grouping under the rubric of principled postmodernism: "postmodern" because these views involve a major re-evaluation of many of the most cherished beliefs of the modern era; "principled" because my interest here is to avoid the collapse into relativism or the language games popular in certain postmodern writing and to uphold a postmodernism that retains a notion of the political and ethical.

Although there has been a long tradition of critical work in scholastic circles, much of which has come under variations on a Marxist theme, recent powerful critical challenges appear to be shaking standard epistemologies more fundamentally to the core than before. It is not uncommon, for example, to find statements to the effect that philosophy itself has come to an end (Baynes, Bohman & McCarthy, 1986). Broadly speaking, these challenges may be grouped under the rubric of postmodernism which I will take here to include a variety of critical standpoints amongst which the emergent feminist and Third World voices are the most vibrant. Of particular concern are the more radical and political forms of postmodernism in the writings of Foucault and others (rather than the less political language games to be found in literary criticism and aesthetics); feminist viewpoints that go beyond seeking equal opportunities for participation to challenge the implications of the history of that unequal participation as it is represented in a massive body of patriarchal thought; and work from the Third World where scholars have emerged from the straightjackets of colonial and neocolonial education to challenge the foundations of Western academic thought.

Postmodernist work has been attempting to show how Western scholarship is located within the context of modernity, a very particular way of viewing the world which may well be in decline. These critiques have drawn attention to the totalizing or universalizing tendencies in modernist thought, particularly the belief in a transcendent form of rationality. The belief in history as linear and ordered has been challenged, especially with respect to its tendency to submerge alternative views of the world and assume a linear and upward path of progress. Highly questionable, too, has become the notion of the unified, rational subject, that rational, Cartesian being capable of knowing both the self and other objects.

Not unsurprisingly, these challenges have led to serious doubts about the nature of philosophical inquiry. Philosophers, and I believe all of us who are seeking to understand the underpinnings of our work in a broader sense, have had to respond to a number of challenges: questions about the local and the incommensurable in the face of claims to universality and foundationalism; the decentering of the subject and the concomitant sense of rationality in the face of emerging work on the unconscious, the will to power, the economy of desire and the formation of subjectivities in discourse; and questions about the modernist concept of representation -- that a knowing subject can stand independent of a world of objects -- in the face of the implications from Nietzsche's and Heidegger's work, which have suggested that we are all in and of this world and that there is no form of knowing outside the linguistic, social, historical and cultural frames within which we exist.

The focus of much postmodern criticism has been on science and philosophy. While critiques of positivism -- the incursion of natural scientific methods into the study of humans -- can be traced back through the Frankfurt School to Nietzsche and Kierkegaard, more recent postmodern critiques have shown how positivist thought has come to exercise extreme authority over substantial domains of our lives: we have become subjects of the normalizing gaze of medicine, psychiatry, and so on (see, e.g., Foucault, 1979). The critique of philosophy has challenged that discipline's most fundamental claims to be able to develop a theory of knowledge on any universalizable basis (see, for example, Baynes, Bohman & McCarthy, 1986). These criticisms of modernity, then, have aimed to show how predominant Western, and increasingly world, modes of thought are specific to a very particular time and place and represent only one of many possible epistemologies.

In a number of ways, postmodernism and feminism should, as Nicholson (1990) has pointed out, be natural allies in their critique of the hegemonic body of modernist knowledge. It is not surprising, then, that a wide range of feminist work has sought to deconstruct the Western, male tradition of academic thought and to develop new modes and forms of knowledge. Everywhere, the academic canon has been challenged as women have started to rewrite literary criticism, history, sociology, anthropology, science, philosophy, political science, psychology, psychoanalysis and more (for an excellent collection of articles, see De Lauretis, 1986). Women are not only redefining these domains, changing our understanding of notions such as the subject or knowledge, but are

shifting the whole ground on which academic work is done by stressing the personal (as always political), desire and memory. Recently, a number of feminist thinkers have started struggling with the problem of much feminist work continuing to reproduce the universalizing tendencies of modernist thought, especially in essentialized views of the female or universalized notions of women. As a number of the articles in Nicholson's (1990) collection suggest, however, taking up the postmodern challenge to locate struggle in the local represents a dangerous threat to the notion of gender as a unifying concept around which a struggle can be maintained. Nicholson suggests that a carefully constructed postmodern feminism can nevertheless overcome postmodern relativism and abandonment of grand theories by theorizing in ways inimical to essentialism, especially through historical work. While a postmodern critique of modernity's most firmly held beliefs (in a rational, unified subject, progress, or universalism) has outlined the specificity and limitations of modernist thought, feminist criticism has started to help us understand the gendered nature of that thinking and to suggest new ways of thinking about the world.

Not surprisingly, the universalizing tendencies of Western thought and the notion of linear, technological progress, with the West at the top of the scale, have received massive criticism from diverse Third World scholars as well. Just as we can observe the gradual incursion of one mode of thought into other domains of human experience in the West, so can we observe a similar expansion from First and Second World countries to the Third World, especially as this was sanctified within the discourses not only of economic development, but of educational and technological aid as well. Writers such as Nandy (e.g., 1983), Kothari (e.g., 1987), and Mazrui (e.g., 1986), amongst many others, have pointed out the limitations and dangers of monoperadigmatic Western thought: "The politics of diversity and plurality," Kothari argues, "by rendering the mainstream monolith irrelevant, becomes the foundation of an alternative post-modern era of action and knowledge" (pp. 279-280). The efforts of such thinkers to oppose the hegemony in the world of Western scientific thought also hold rich possibilities for the re-emergence of a diverse set of alternative epistemologies. Here, too, then, is a powerful form of transformative critique which argues against the received epistemologies of Western thought and seeks to re-discover, reinvent and create new and different ways of understanding the world.

Some areas of academic work have been going through major upheavals as the impact of this epistemological crisis has begun to be felt. Once the implications of the limited applicability of Western thought to many domains were confronted, anthropologists, for example, found their work in need of fundamental re-evaluation. Is it indeed useful to retain a notion of culture with its tendency always to essentialize others? Is it indeed possible at all to represent the Other? (For a discussion of these questions, see Clifford, 1988.) In the sociology of school knowledge, to take another example, radical new views have questioned the ideological bases of the curriculum, suggesting the need to re-evaluate assumptions that value one type of knowledge (academic) over others (everyday) (for a summary of these issues, see Whitty, 1985). And, as I have already mentioned, philosophy has arrived at the point where its very existence is being questioned. Despite these major upheavals, despite the "linguistic turn" that has brought many diverse thinkers outside the field of applied linguistics to agree on the impossibility of knowing outside language, applied linguistics appears to have continued blithely on with its continued faith in objectivity, in models and methods, in positivism, in an apolitical, ahistorical view of language, in a clear divide between subject and object, in thought and experience prior to language, and in the applicability of its theories to the rest of the world.

Recently, however, new perspectives relevant to applied linguistics have started to emerge (see also the discussion of critical perspectives in the next section). In an important book that addresses much thinking on the formation of the subject in language and psychology, Henriques, Hollway, Urwin, Venn & Walkerdine (1984) point to the theoretical weaknesses and political disadvantages in psychology's construction of the individual within the individual/society dichotomy and in the construction of the individual within positivist psychology both as an object of its study and as a site for social regulation. Arguing that psychology has constructed the modern individual (rather than reflecting some pre-given psychological entity), they point out that since it is important for us to understand the subject as multiple, contradictory and constructed within different discourses, we are thus obliged to look at power relations (and especially gender) in the formation of the subject in and through language. As Urwin (1984) suggests, Saussure's universal competence is rooted in the notion of a unitary subject and a common core rationality, independent of social processes. The sociolinguistic challenges to Chomsky's similar

view, while useful in their criticisms of the dangers in notions of homogeneity and innateness, have not challenged this fundamental belief in a unitary, rational subject and have continued to replicate Saussure's basic dualism of the individual vs. society. As Bourne (1988) suggests, the polarization of the new disciplines of sociolinguistics and psycholinguistics has only served to further reproduce and legitimize this internal/external dualism.

A great deal of recent rethinking of the notion of language (outside applied linguistics) has also been going on. After outlining the representationalist and structuralist views of meaning, Morgan (1987) subsequently offers a third view of language which he calls "dialogic discourse." Drawing on the work of Bakhtin/Volosinov and Foucault, this view is neither just a description of an abstract structure nor merely a theory of language, but a politics of representation, an understanding of how language is socially constructed and how it produces change and is changed in human life. It identifies language as a scene of struggle, where the world is always/already in the word. This poststructuralist view of language, the importance of which for better conceptualizing language teaching has been clearly demonstrated by Peirce (1989), centers on a notion of discourse as a complex of signs and practices that organizes social existence and meaning-making practices.² As Weedon (1987) has remarked "once language is understood in terms of competing discourses, competing ways of giving meaning to the world, which imply differences in the organization of social power, then language becomes an important site of political struggle" (p. 24). Fundamental to this view, too, is the notion that subjectivities are constituted in discourse. Instead of the rational, unified subject, capable of ideas and experiences prior to and outside language a poststructuralist view suggests that since subjectivities are constructed through and take up positions in competing discourses, they are therefore both multiple and contradictory spaces.

I have been trying in this section to sketch out some of the challenges to the predominant modernist paradigms posed by a broad postmodern critique. It would, however, be both an enormous and a presumptuous task to try at this juncture to set out explicit implications for applied linguistics. Nevertheless, I think it is worth making two final points about the ideas I am trying to put forward here. First, postmodern thinking can help us see the very particular nature of applied linguistics as it has developed in its modernist context. This should, at the very least, lead us to question the foundations of our work and the often implicit claims to

universality and progress as they are couched within positivist discourses.

Second, while I do not wish to suggest that applied linguists should now start blindly accepting the plethora of new ideas that are at present floating around (we should certainly also approach new and critical ideas critically), I do feel that we should at least be responding to them. When a domain of academic work continues along untroubled while some fundamental questions are being raised about the epistemological bases on which it is built, that domain may be poorly grounded in any understanding of the forms of knowledge that it is itself producing. I have tried to sketch out some of the challenges being made to our understandings of ourselves and the world, challenges that deal with positivism, language, representation, the subject and rationality. If anthropologists are questioning the continued use of a particular notion of culture and the possibility of ever representing the Other, if educators are asking difficult questions about the cultural politics of schooling and about the interests and politics of different forms of knowledge, if psychologists are questioning the construction and concomitant regulation of the subject within psychological discourses, if poststructuralists are emphasizing power, struggle and discourse in language as very different understandings of the construction of meaning, if positivist claims to knowledge are being questioned not only for their limitations but because of the interests they serve, then surely applied linguists need to ask serious questions about their own work.

I would like to suggest, therefore, a certain direction for this project, one which would allow us to move out of the postmodern diaspora. In order to take up what I have called a "principled postmodernism," we need to reinstate the political and the ethical as the principal elements of our academic work. While positivism submerged these issues beneath its scientific methods, postmodern thinking has by no means guaranteed their re-emergence. Thus, I think we need to find ways of dealing with questions of power as they have been developed by such thinkers as Foucault so that we can not only understand but also try to change inequalities. In the next section, I shall briefly outline four critical projects that try to deal with these issues, in the hope that this will give us a sense of a way forward for a critical applied linguistics.

CRITICAL LINGUISTICS, SOCIOLINGUISTICS, ETHNOGRAPHY AND PEDAGOGY

The use of the word "critical" is not intended to reference a notion of criticism only in terms of arguments against the canon of accepted thinking, but rather to include a notion of transformative critique. By this I mean that we as intellectuals and teachers need to take up moral and political stances in order to attempt to improve and change an inequitably structured world. By such criticism I do not mean the "fine-tuning" of models that so often passes for academic work, but work that seeks to understand the political implications of its practice. In this final section, I shall look briefly at critical linguistics, critical sociolinguistics, critical ethnography and critical pedagogy in the hope that these may give us some clues as to the ways in which we might construct a critical applied linguistics.

In an important addition to the small field of critical linguistics, Fairclough (1989) demonstrates how Critical Language Study (CLS) can reveal the processes by which language functions to maintain and change the power relations in society. He outlines two main purposes to his work: correcting "the widespread underestimation of the significance of language in the production, maintenance, and change of social relations of power," and increasing "consciousness of how language contributes to the domination of some people by others, because consciousness is the first step towards emancipation" (p. 1). In his criticism of standard approaches to language study, he argues that linguistics has operated with an idealized view of language, which has isolated it from the social and historical matrix in which it is so firmly embedded. Since sociolinguistics, he suggests, has been heavily influenced by positivism, it has thus tended to describe and correlate variation with simplistic understandings of social class but has never asked why such social variation exists or tried to change such conditions. Other approaches to the study of language use, such as pragmatics (in its Anglo-American strain) or conversation analysis, have also tended to concentrate on the individual and on "micro"-structures, rather than on exploring how language relates to social power. Drawing on the work of Foucault and Habermas, Fairclough argues that by analyzing the way power and ideology are inscribed in discourse, we can come to a critical awareness of the way language both reflects and constructs social inequality.

In his book on language use in late capitalist society, Mey (1985) makes a similar point. He argues that for traditional

sociolinguistics the present organization of society's material production is taken as the only natural one. Furthermore, sociology tends to ignore social classes and operates instead with a superficial form of social stratification, failing, therefore, to establish a connection between people's place in the social hierarchy and the linguistic and other forms of oppression to which they are subject. "A critical sociolinguistics, by contrast," Mey argues, "seeks to recognize the political and economic distortions that our society imposes on us. It attempts to explain the differences between *oppressed* and *oppressor* language by pointing out that the different classes have unequal access to societal power" (p. 342).

It is also possible, as Simon & Dippo (1986) have pointed out, to make research critical. Starting with the premise that "to actually *do* ethnography is to engage in a process of knowledge production" (p. 195), they argue that all modes of knowing and all particular knowledge forms are ideological (this is not merely a question of "bias," but rather a matter of whose interests are served by one's work). Any production of knowledge must therefore be made accountable to a specific project, which for Simon & Dippo is a pedagogical/political project that aims to transform an inequitably structured society by constructing a mode of learning and a conception of knowledge "that may enhance the possibility of collectively constituted thought and action" (p. 196). For ethnographic work to be critical, they argue, it requires (1) a problematic that is intended to reveal social practices as produced and regulated forms of action and meaning; (2) a means by which it can be taken up in the public sphere to foster critique and transformation of the society; and (3) a self-reflexive element that can address the situated character of the research as located within particular historical and institutional forms. Most importantly, such an ethnographic project not only goes beyond the limitations of positivist research, it also aims to go beyond merely hermeneutic concerns in favor of an emancipatory project.

There is now a fairly large body of work under the rubric of 'critical pedagogy' (e.g., Giroux, 1988). Viewing schools as cultural arenas where diverse ideological and social forms are in constant struggle, critical pedagogy seeks to understand and critique the historical and sociopolitical context of schooling and to develop pedagogical practices that aim not only to change the nature of schooling, but also the wider society. Taking knowledge as socially constructed and all claims to knowledge as therefore "interested," it seeks to explore and challenge the types of knowledge produced and

legitimated in schools. This position leads to an emphasis both on how subjectivities are constructed in and around schools and on student voice and popular culture as delegitimated forms of culture and knowledge that students bring to schools. As Simon (1987) puts it:

We view educational practice as a form of cultural politics. For us such a practice is centrally concerned with the moral and analytical task of assessing whether specific forms encourage and make possible the realization of differentiated capacities, or whether they disable, deny, dilute, and distort those capacities. Equally, such a practice is for us concerned with the educational and political task of constructing new forms that would expand the range of social identities that people have the possibility of becoming. (p. 177)

CONCLUSION: CRITICAL APPLIED LINGUISTICS

What, then, might critical applied linguistics look like? From the brief discussion above of other critical approaches, I think some of the directions that it might take become clear. In his discussion of the ideologies implicit in different approaches to teaching writing, Berlin (1988) concludes that "every pedagogy is imbricated in ideology, in a set of tacit assumptions about what is real, what is good, what is possible, and how power ought to be distributed" (p. 492). I believe we have to take these considerations very seriously and try to see the connections between our work and far broader issues of social inequality. As applied linguists, we need to not only understand ourselves as intellectuals situated in very particular social, cultural and historical locations, but also to understand that the knowledge we produce is always interested. If we are concerned about the manifold and manifest inequities of the societies and the world we live in, then I believe we must start to take up moral and political projects to change those circumstances. This requires that we cease to operate with modes of intellectual inquiry that are asocial, apolitical or ahistorical.

I do not wish to appear, of course, to be providing some new prescription. Rather, my goals are to broaden the possibilities for the way in which we can investigate questions of language and education. We need to rethink what we mean by language, to investigate the very particular circumstances that have led to our current concepts and to see how, by taking up a view of discourse as

a complex of signs and practices that organize social existence and (re)production, we can view language as fundamental in both maintaining and changing the way we live and understand the world and ourselves. Similarly, we need to rethink language acquisition in its social, cultural and political contexts, taking into account gender, race and other relations of power as well as a notion of the subject as multiple and formed within different discourses. Research would do well to drop its obsession with quantitative proof and claims to objectivity. I am not suggesting that we should reject quantitative assessment by any means (I think the quantitative/qualitative debate obscures the issue); rather, we need to acknowledge the ideological basis of all our work, and, in my opinion, seek both to further understanding and to bring about change. We need to see schools as complex cultural arenas where diverse forms are constantly in struggle, and we need to understand, above all, the cultural politics of language teaching. We would also do well to be more humble in the world, listening to the many alternative views of language and learning, rather than preaching our views as the newest and best. Engaging in critical work is by no means easy, but I believe it is essential that those of us who feel that change must and can be brought about need to start developing a means of pursuing applied linguistics as a critical project.

Notes

¹I should also acknowledge that I am well aware of a degree of diversity and dissension within what I am describing here as a homogeneous and hegemonic body of thought.

²See also the debate between Peirce and Dubois in the March, 1990 issue of *TESOL Quarterly*.

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A Comparison of the Abilities Measured by the Cambridge and Educational Testing Service EFL Test Batteries¹

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This paper compares the abilities measured by the First Certificate of English (FCE) administered by the Cambridge Local Examinations Syndicate and the Test of English as a Foreign Language (TOEFL) administered by Educational Testing Service (ETS). An investigation of the factor structure of the two test batteries, both within each test battery as well as across test batteries, is presented. The analyses suggest that the FCE and ETS test batteries administered in this study appear to measure, to a large degree, the same common aspect of language proficiency of the subjects in the sample. The contribution of this study to language testing is also discussed.

INTRODUCTION

The First Certificate in English (FCE), administered by the University of Cambridge Local Examinations Syndicate (Cambridge) and the Test of English as a Foreign Language (TOEFL), administered by Educational Testing Service (ETS), are widely used as measures of proficiency for English as a foreign language (EFL) throughout the world. Hundreds of thousands of

individuals take these tests each year, and it is likely that most of these individuals make some sort of personal decision, such as seeking employment, advancing in a career or beginning an educational program, that is determined partly by their scores on these tests. Furthermore, since many of these individuals will submit job or educational program applications to more than one employer or institution, it is probably safe to say that the number of individual career decisions affected in some degree by the results of these tests is well over one million annually.

While the EFL proficiency test batteries developed by Cambridge and ETS are designed to measure many of the same abilities, they nevertheless represent radically different approaches to language test development. The TOEFL is perhaps the prototypical "psychometric/structuralist" language test (Spolsky 1978), representing the best qualities of this approach, which emphasizes reliability and item analysis. Its complements, the Test of Spoken English (TSE) and Test of Written English (TWE), while still developed in the psychometric tradition, represent an expansion of the structuralist linguistic framework and incorporate features associated with a broader range of language abilities and test methods. The FCE, on the other hand, has been designed and developed largely in the tradition of the British examinations system which places more emphasis on expert judgment and institutional experience in the production, scoring and interpretation of test results.

In short, there are important differences in the approaches to educational measurement that characterize the FCE and the ETS tests of EFL. In conducting this study, we became increasingly aware of these differences, since they affected the way we processed and analyzed the data. But rather than causing us to prejudge one approach or the other, our awareness of these differences has, we believe, enriched our treatment of the data and, we hope, enlightened our interpretation of the results.

Objectives

The results reported in this paper were obtained as part of a larger study, the Cambridge-TOEFL Comparability Study (CTCS), commissioned by Cambridge to examine the comparability of the Cambridge EFL tests (both the FCE and the Certificate of Proficiency in English) and the ETS tests of EFL (Bachman et al., 1989a). The first goal of the CTCS was short-term: to examine the comparability of abilities measured by these two EFL proficiency

test batteries. This involved two different but complementary approaches: 1) the qualitative content analysis of the two tests, including the specific language abilities and the types of test tasks employed, and 2) the quantitative investigation of patterns of relationships in examinee performance among the different tests. The results of the content analysis have been reported elsewhere (Bachman et al., 1988a; Bachman et al., 1988b). This paper will thus focus on the results of the quantitative analyses of performance on the FCE and the ETS tests of EFL.

The second goal of the study is long-term -- to initiate a program of research and development with two aims: 1) improving the content and measurement characteristics of the Cambridge EFL examinations by understanding better what language abilities they measure, and 2) investigating the nature of communicative language ability and its measurement. This long-term goal will be accomplished in a number of ways, including, but not limited to the following:

- 1) routine monitoring of the reliability of Cambridge EFL examinations and refinement of procedures for maximizing reliability;
- 2) research into the patterns of performance across the various parts of the Cambridge EFL examinations;
- 3) research into the relationships between test-taker characteristics and test performance;
- 4) research into the analysis of test content and the subsequent refinement of the models upon which this study based and of the procedures for operationalizing these models in test design and specifications;
- 5) research into the relationships between aspects of test content and test performance.

These last two areas represent a particularly important concern for both test developers and test users, since recent work has indicated a poor relationship between what "experts" believe a given test item measures and test takers' performance (Alderson & Lukmani, 1986; Alderson et al., 1987; Perkins & Linnville, 1987; Bachman et al., 1989b; Alderson, 1990).

PROCEDURES

Subjects

Characteristics of Typical FCE Candidates

Candidates for the FCE represent a widely varied population and have many reasons for seeking FCE certification. For example, if a candidate is working in a clerical or support position where English proficiency is required in a business or in the government service, an FCE certificate might be one criterion for promotion or salary increase. In addition to these adult candidates, large numbers of FCE takers are of school age; in many parts of the world, particularly in countries without formal institutional examinations for school-leaving, the FCE is taken as a *de facto* school-leaving examination. It is definitely not the case that candidates take the FCE for purposes of university entrance, a function served by the Certificate of Proficiency in English.

Although systematic data on native language background, educational status, age, sex and amount of non-FCE prior English study are not available, it is probably safe to assume that among the FCE population there is a wide variation in background variables. It is also likely that candidates are familiar with the FCE format, since the vast majority of FCE candidates have undergone a prior course of instruction covering the syllabus on which the FCE is based.

Characteristics of Typical TOEFL Takers

Extensive information about TOEFL takers is available in several published ETS reports (ETS, 1987; Wilson, 1982; Wilson, 1987). According to these reports, typical TOEFL takers, in contrast to typical FCE candidates, are largely "degree planners" -- individuals planning to enter a college or university degree program in the U. S. or Canada -- (80%), male (72%) and have median ages of 20.6 and 25.4 for undergraduate and graduate level degree planners, respectively. Furthermore, 28% of the individuals who took the TOEFL for the first time in 1977 and 1978 had taken the test two or more times by 1982, with much higher percentages of test repeaters (40-50%) being reported for three CTCs sites: Hong Kong, Thailand and Japan.

Sampling Procedures

The sampling procedures followed in the study were intended to insure that sites and subjects would constitute a representative sample of the operational worldwide populations of the TOEFL and FCE. The first consideration in selecting sites was the need to represent different geographic regions and native languages in the sample. Based on the geographic distributions of the Cambridge and TOEFL operational populations, we decided to include sites in the Far East, Middle East, Europe and South America. Within each of these regions we attempted to obtain representative samples of different language groups: Chinese, Japanese and Thai for the Far East; Arabic for the Middle East; Spanish, French and German for Europe; Spanish and Portuguese for South America.

The second consideration in selecting sites for the study was the need to obtain a representative sample both of typical FCE candidates and of typical TOEFL takers. We identified two types of sites: 1) "Cambridge-dominant," which were identified from Cambridge records as having large numbers of FCE candidates, and 2) "TOEFL-dominant," which generally had small numbers of FCE candidates and, according to published ETS reports (e.g., ETS, 1987), relatively large numbers of TOEFL test takers.

Finally, the availability of local persons to participate as Site Coordinators, who could assure that they were able to administer both sets of tests under operational conditions, and the availability of adequate numbers of subjects obviously had to be taken into account. After lengthy discussions revolving around these areas of concern, and considerable negotiation, the following eight sites were agreed upon: (a) TOEFL-dominant sites: Bangkok, Cairo, Hong Kong, Osaka; and (b) Cambridge-dominant sites: Madrid, São Paulo, Toulouse, Zurich.

At the Cambridge-dominant sites, the Site Coordinator was the examinations officer in charge of Cambridge EFL tests, while the Site Coordinator at the TOEFL-dominant sites was a staff member at an institution of higher education who was not only familiar with the local population of "typical" TOEFL-takers, but who also had access to adequate numbers of these individuals from which to draw a sample. This person generally worked closely with the local Cambridge examinations officer in arranging the schedule for test administration.

Characteristics of the Sample Subjects

Test performance Summary descriptive statistics for test or paper scores for the sample subjects are given in Table 1. Inspection of these score distributions indicated that all the measures were reasonably normally distributed and that the distributional assumptions for parametric statistical analyses were warranted. In order to examine the extent to which the sample subjects were typical of their respective operational populations, the sample means were compared with relevant norm groups. For the FCE, the norm group was all individuals who took the FCE in December, 1988 (University of Cambridge Local Examinations Syndicate 1988), while for the ETS tests, the norm groups were those reported in the most recent editions of the TOEFL Test and Score Manual (ETS, 1987), the Test of Spoken English Manual for Score Users (ETS, 1982) and the Test of Written English Guide (ETS, 1989).

The sample means and standard deviations on the FCE and the ETS tests as well as those of the FCE and ETS norm groups are presented in Tables 2 and 3, respectively. While virtually all the differences between the sample and norm group means were statistically significant, this is primarily a function of the large sample sizes, and thus it makes more sense to consider the practical importance of the differences. Looking at Table 2, we see that the largest difference between the sample and FCE norm group means is for Paper 2: 1.77 points on a scale of 40. The differences between the sample and ETS norm group means, presented in Table 3, are also small, relative to the standard deviations of the ETS norm group. The largest differences here was for the TSE/SPEAK Comprehensibility rating, with a mean difference of 19.4 on a scale of 300. Thus, although the sample means tend to be slightly lower than those of their relevant norm groups, these differences are too small to be of practical importance, and it can be concluded that the sample subjects constitute a representative sample of the FCE and ETS operational populations in terms of their test performance.

Test takers' characteristics Information on subjects' age and sex was obtained from responses to questions on their TOEFL answer sheets, while information on their current educational status was obtained from responses to questions on a background questionnaire. The majority of the CTCS subjects were enrolled as students, whether at the secondary school level (21.3%), the college level (full-time, 27.6%; part-time, 10.4%), or in a language institute or other English course (17%), while 23.7% indicated that they

were not enrolled as students. The median age was 21, the youngest test taker being 14 years of age and the oldest 58. Slightly over half (59.4%) were female.

Information on the characteristics of TOEFL examinees from 1977-1979, provided by Wilson (1982), was used as a basis for comparing the sample subjects' characteristics with those of the operational TOEFL population. Since no such information is available for the operational FCE population, no comparisons could be made. Wilson did not include current educational status in his study, but the mean age for his population was 21.4 for individuals intending to apply to an undergraduate degree program ("undergraduate level degree planners") and 26.3 for graduate level degree planners, as compared to 22.7 for the sample group. A larger difference between the operational TOEFL population and the sample can be seen in the sex of the test takers, with Wilson reporting that 72% of his group was male, compared to about 41% for the sample subjects.

TABLE 1
Score Distributions, All Measures

VARIABLE	MEAN	STD DEV	MIN	MAX	N
TOEFL 1	49.619	6.665	29	68	1448
TOEFL 2	51.118	6.900	25	68	1448
TOEFL 3	51.489	6.696	28	66	1448
TOEFL TOTAL	507.427	58.863	310	647	1448
TEW	3.929	.891	1	6	1398
SPEAK GRAM.	1.934	.454	0	3	1304
SPEAK PRON.	2.134	.380	0	3	1314
SPEAK FLUENCY	1.945	.440	0	3	1304
SPEAK COMP.	201.572	40.906	50	300	1304
FCE PAPER 1	25.945	4.896	10	40	1359
FCE PAPER 2	24.303	6.043	0	40	1357
FCE PAPER 3	24.861	5.706	1	40	1353
FCE PAPER 4	13.600	3.175	4	20	1344
FCE PAPER 5	27.203	5.951	1	40	1381

TABLE 2
Differences between CTCS Group Means, Standard
Deviations and FCE Norms

Test	N		MEAN		STD DEV	
	CTCS	Norm	CTCS	Norm	CTCS	Norm
Paper 1	1,359	30,816	25.95	27.19	4.90	5.19
Paper 2	1,357	30,818	24.30	26.07	6.04	5.22
Paper 3	1,353	30,805	24.86	26.30	5.71	5.26
Paper 4	1,344	30,936	13.60	14.47	3.18	3.25
Paper 5	1,381	31,040	27.20	28.04	5.95	5.72

TABLE 3
Differences between CTCS Group Means, Standard Deviations and ETS Norms

Test	N		MEAN		STD DEV	
	CTCS	Norm	CTCS	Norm	CTCS	Norm
TOEFL 1	1,448	714,731	49.60	51.20	6.70	6.90
TOEFL 2	1,448	714,731	51.10	51.30	6.90	7.70
TOEFL 3	1,448	714,731	51.50	51.10	6.70	7.30
TOEFL Tot	1,448	714,731	507.40	512.00	58.90	66.00
TWE/TEW	1,398	230,921	3.93	3.64	0.89	0.99
TSE/SPEAK						
GRAM	1,304	3,500	1.93	2.43	0.45	0.39
PRON	1,314	3,500	2.13	2.10	0.38	0.49
FLCY	1,304	3,500	1.95	2.15	0.44	0.45
COMP	1,304	3,500	201.57	221.00	40.91	45.00

In summary, the sample subjects appeared to be quite similar to the operational populations of both the TOEFL and the FCE in terms of their test performance. With respect to test-taker characteristics, the sample was quite close in age to TOEFL undergraduate degree planners, but had a higher proportion of females than is typical of TOEFL test takers.

Test Instruments

First Certificate in English (FCE)

FCE Paper 1, entitled "Reading Comprehension," includes two sections of 4-choice multiple-choice items: 25 items which appear to test use or usage and ten items based on reading passages.

FCE Paper 2, entitled "Composition," consists of five prompts from which the candidate chooses two, writing 120-180 words in response to each. FCE Paper 3, entitled "Use of English," includes items that appear to test various aspects of lexicon, register and other elements of English usage. Paper 4 is a tape-recording-plus-booklet test, entitled "Listening Comprehension," for which candidates listen to several passages and respond to items per passage. Paper 5 consists of a face-to-face oral interview conducted as either a "one-on-one," with one examiner and one candidate, or as a "group" interview, with more than one candidate and two examiners.

Test of English as a Foreign Language (TOEFL)

Early in the planning of the study it was obvious that we would not be able to synchronize the operational administrations of the two test batteries; we therefore decided to use the institutional versions of the TOEFL and the TWE as well as a composition test similar to the TWE. The institutional TOEFL consists of those official international forms of the TOEFL that have been retired from operational use. While ETS does not report scores on the institutional TOEFL to other institutions, it does guarantee content and statistical equivalence of the institutional and international forms of the TOEFL. There are three sections to the test: Section 1 - Listening Comprehension; Section 2 - Structure and Written Expression; Section 3 - Vocabulary and Reading Comprehension. Item types vary somewhat, but all follow a four-option multiple-choice format.

Speaking Proficiency in English Assessment Kit (SPEAK)

The SPEAK is a semi-direct test of oral performance and is the institutional counterpart of the Test of Spoken English (TSE), consisting of retired forms of the operational TSE. It consists of a complete kit, including materials for training raters in the scoring procedure and is administered entirely by tape recorder, with candidates listening to a number of prompts from a cassette source tape, looking at verbal and graphic stimulus material in an accompanying booklet and responding on a target cassette tape which also records the prompts from the source tape.

Test of English Writing (TEW)

ETS produces a composition test called the Test of Written English (TWE) which, because it was still considered experimental by ETS at the time the study began, had no institutional counterpart. An experienced TWE rater was therefore asked to produce a prompt similar to example prompts that ETS makes available in its information to prospective TWE takers. We called this test the "Test of English Writing" (TEW). The TEW test booklet contained two printed sheets: on the first were the instructions, while the second contained the single prompt, including both verbal and graphic information, to be answered by all candidates in the study.

Test Administration

Because it was not possible to synchronize operational administrations of the FCE and the ETS tests, we decided to administer all tests within the schedule of an operational FCE administration (December, 1988). This meant that candidates generally took the FCE and ETS pencil-and-paper sections (i.e., FCE Papers 1, 2 and 3, TOEFL and TEW) on adjacent days. FCE Papers 4 and 5 were administered within the five weeks devoted to Cambridge Papers 1, 2 and 3, while at most sites the SPEAK was given in the same two-day period as the pencil-and-paper tests. Operational procedures and time allocations prescribed by all tests were strictly adhered to.

Scoring Procedures

All tests were scored according to operational procedures prescribed by Cambridge and ETS. FCE Paper 1 was scored by optical scanner at Cambridge, while answers to Papers 3 and 4 were hand scored using scoring keys or "marking schemes" prepared by examiners. Papers 2 and 5 were rated subjectively by trained examiners, using rating scales developed by Cambridge. The TOEFL was scored by optical scanner at Illinois, while the SPEAK and TEW were rated subjectively by trained raters in North America, according to rating scales developed by ETS.

Data Preparation and Analyses

Data from all the FCE papers were prepared in Cambridge. While Paper 1 answer sheets were optically scanned, the majority of the data from the other papers were manually entered into computer files. The machine-scorable answer sheets for the TOEFL and SPEAK were optically scanned, while the TEW ratings were manually entered into computer files at the University of Illinois at Urbana-Champaign. Subsequent data merging and data file assembly were performed using SAS or PC-SAS (SAS, 1988). Statistical analyses were performed using SPSS-X Version 3.0 (SPSS, 1988a), SPSS/PC+ Version 2.1 (SPSS, 1988b; SPSS, 1988c), GENOVA (Crick & Brennan, 1983) and factor analysis programs written for the PC by John B. Carroll (Carroll, 1989).

MEASUREMENT CHARACTERISTICS OF TWO TEST BATTERIES

Reliability

Classical internal consistency estimates (coefficient alpha) were calculated for the discrete-item tests (FCE Papers 1, 3, 4 and TOEFL). Since two forms of FCE Paper 1 and ten forms of Paper 4 were administered in the study, the reliabilities reported here for these papers are the weighted averages (using Fisher's Z transformation) of the coefficient alphas for the different forms of each paper. Inter-rater reliabilities for the TWE and SPEAK ratings were estimated using generalizability theory. The values reported here were obtained from a single facet G-study design with raters as the facet. Because multiple independent ratings are not done as part of the operational FCE, inter- and intra-rater reliabilities could not be estimated for FCE Papers 2 (composition) and 5 (oral interview).

Reliability estimates for the sample, along with their respective population norms, are reported in Table 4. The norm for FCE Paper 1 is the reported KR-20 operational examinees who took the FCE between December 1988 and December 1989, while the norms for FCE Papers 3 and 4 consist of average KR-20s (using Fisher's transformation to Z) across samples of operational examinees who took the FCE in December, 1989. Norms for the ETS tests are those reported in the ETS score and interpretive manuals cited above. In general, the FCE reliabilities for our sample are slightly lower than those generally obtained operationally by Cambridge and somewhat below the norms reported for the ETS

tests. While the reliability estimate obtained for Paper 3 is within acceptable limits, those obtained for Papers 1 and 4 are lower than normally acceptable for standardized tests.

Comparability of Abilities Measured

In order to determine whether and to what extent the two test batteries (FCE and ETS) might be comparable, it was first necessary to investigate the extent to which patterns of performance support interpretations of similar abilities. This was done primarily by examining the patterns of correlations within and across the two test batteries through exploratory factor analysis.

Three correlation matrices were analyzed: 1) intercorrelations among the scaled scores for the five FCE papers, 2) intercorrelations among the eight ETS standard scores, and 3) intercorrelations among all 13 of these measures. These correlation matrices are given in the Appendix. The matrix of product-moment correlations among the various test scores to be analyzed was examined for appropriateness of the common factor model in several ways. Principal axes were extracted with squared multiple correlations on the diagonal as initial communality estimates. The eigenvalues obtained from the initial extraction were plotted on a scree plot, an examination of which, along with differences between successive eigenvalues, led to an initial decision about the appropriate number of factors to extract. Specified numbers of principal axes, generally including one fewer and one more than the number initially decided upon for a given correlation matrix, were then successively extracted and rotated. Two rotated factor structure matrices were obtained for each number of principal axes extracted: an orthogonal solution with the normal varimax procedure and an oblique solution with Tucker & Finkbeiner's (1981) least-squares hyperplane fitting ("DAPFER"). The final determination of the number of factors and the "best" solution was made on the basis of simplicity and interpretability, these qualities being judged, of course, subjectively. Simplicity was evaluated by examining both the patterns of salient loadings for the orthogonal and oblique solutions and the scatter plots of loadings on the rotated axes. Interpretability was evaluated with reference to the extent to which the salient factor loadings and factor correlations reflected the nature of the tasks and the abilities thought to be operationalized in the different measures.

TABLE 4
Reliability Estimates

Test	k	N	a	Norm
FCE Paper 1 ¹	40	1,394	.791	.901 ¹
FCE Paper 2	(Not available)			
FCE Paper 3	52	995	.847	.870 ¹
FCE Paper 4 ¹	27	759	.616	.705 ¹
FCE Paper 5	(Not available)			
TOEFL 1	50	1,467	.889	.900
TOEFL 2	34	1,467	.834	.860
TOEFL 3	58	1,467	.874	.900
TEW ²		1,399	.896	.860
Speak Comp ²		1,318	.970	.880

1 Weighted average coefficient alphas across more than one test form

2 Generalizability coefficients

Within-Paper/Test Factor Structures

The results of the exploratory factor analysis for the FCE paper scores are given in Table 5, while those for the ETS test scores appear in Table 6. The scree plots and the parallel analyses suggested that two factors underlay both sets of test scores, while the oblique rotations yielded factors that were highly correlated for both sets of tests. Since both of these factor solutions were highly oblique, with correlations between factors of .826 for the FCE and .601 for the ETS tests, a Schmid-Leiman transformation to orthogonal primary factors with a second-order general factor was performed on each (Schmid & Leiman, 1957).

All the FCE papers loaded most heavily on a higher-order factor, which accounted for 50.3% of the common variance. The first primary factor was characterized by high loadings on Paper 1, 2 and 3, while Papers 4 and 5 had high loadings on the second primary factor. This suggests that the FCE Papers all tend to measure a common component of the subjects' English language ability, with two specific ability factors, "reading, structure and writing" and "speaking and listening," being identified.

This pattern of loadings was repeated for the ETS tests, with all tests loading most heavily on a second-order general factor that accounted for 43.1% of the common variance. The ETS tests, except perhaps for TOEFL Section 1, also had high loadings on the two primary factors, with TOEFL Section 1 and the SPEAK ratings

loading most heavily on the first, and with TOEFL Sections 2 and 3 and the TEW loading on the second.

TABLE 5
Exploratory Factor Analysis of FCE Papers

VARIABLE	EIGENVALUE	% OF VAR	CUM %
Paper 1	3.18529	63.7	63.7
Paper 2	.63769	12.8	76.5
Paper 3	.48866	9.8	86.2
Paper 4	.41719	8.3	94.6
Paper 5	.27117	5.4	100.0

COMMUNALITY

.54835
.48888
.62272
.41468
.32595

Orthogonalized Factor Matrix with Second-Order General Factor

	GENERAL FACTOR	FACTOR 1	FACTOR 2	h ²
Paper 1	.733	.275	.062	.617
Paper 2	.689	.260	.057	.546
Paper 3	.809	.433	.061	.846
Paper 4	.679	.071	.241	.524
Paper 5	.622	.024	.310	.484
Eigenvalue	2.515	.336	.165	3.016
% of h ²	50.300	6.700	3.300	60.300

These results suggest that the ETS tests also tend to measure a common component of the subjects' language ability, with specific factors associated with listening and speaking, on the one hand, and reading, structure and writing, on the other, being identified.

These two sets of test scores show remarkable similarities in their factor structures, with higher-order general factors accounting for large portions of the common variances in the two test batteries. But whereas relatively little common variance in the FCE papers is accounted for by first-order factors (10%), in the ETS tests the two first-order factors account for a considerable proportion (26.5%) of the common variance. This suggests that while each test battery

appears to measure a single language ability, the ETS tests provide relatively more information about specific language abilities than do the FCE papers. While these similarities in factor structures would appear to reflect similarities in the abilities of the subjects in the study, they also suggest that these two sets of tests measure these abilities in much the same way.

TABLE 6
Exploratory Factor Analysis of ETS Tests

VARIABLE	EIGENVALUE	% OF VAR	CUM %
TOEFL 1	4.93914	61.7	61.7
TOEFL 2	1.17112	14.6	76.4
TOEFL 3	.55103	6.9	83.3
TEW	.39869	5.0	88.2
SPEAK GRAM	.38118	4.8	93.0
SPEAK PRON	.28032	3.5	96.5
SPEAK FLCY	.20493	2.6	99.1
SPEAK COMP	.07357	0.9	100.0

COMMUNALITY

.53783
.57999
.57389
.37555
.80099
.60725
.77096
.89596

Orthogonalized Factor Matrix with Second-Order General Factor

	GENERAL FACTOR	FACTOR 1	FACTOR 2	h ²
TOEFL 1	.654	.275	.258	.569
TOEFL 2	.648	-.004	.532	.703
TOEFL 3	.642	-.036	.559	.726
TEW	.534	.094	.341	.410
SPEAK GRAM	.668	.576	-.032	.779
SPEAK PRON	.651	.404	.126	.603
SPEAK FLCY	.684	.567	-.009	.791
SPEAK COMP	.750	.650	-.038	.986
Eigenvalue	3.444	1.325	.798	5.567
% of h ²	43.100	16.600	9.900	69.600

Across Battery Factor Structures

In order to examine the relationships between the two test batteries, the correlations among the scaled scores for the five FCE Papers and for the eight ETS test scores were analyzed using the procedures described above. Although the scree test suggested that only two or three factors should be extracted, the parallel analyses criterion indicated five. Therefore, orthogonal and oblique solutions with two, three, four and five principal axes were examined. The solution that appeared to optimize the simplicity and interpretability criteria was a four-factor oblique solution with highly correlated factors. The higher-order solution which the Schmid-Leiman transformation produced is presented in Table 7. As would be expected with very high correlations among the first-order factors, all of the measures have salient loadings on the second-order general factor, which accounts for 49.2% of the common variance. The first-order factors can be characterized as follows: Factor 1 (10.6% of common variance) - SPEAK ratings and FCE Paper 5; Factor 2 (4.4%) - TOEFL Sections 2, 3 and TEW; Factor 3 (1.9%) - FCE Papers 1, 2, 3; and Factor 4 (1.5%) - FCE Paper 4 and TOEFL Section 1.

These loadings suggest that all these tests measure, to a considerable degree, a common portion of the language abilities that characterize the test takers in the sample. After this general or common ability, the next largest component appears to be associated with speaking ability. This is followed by two components that appear to be combinations of ability (reading, structure and writing) and test method ("ETS test method" and "FCE test method"). Finally, there is a relatively small component associated with listening ability. Given that all of the measures examined load most heavily on a higher-order general factor and that two of the first-order factors appear to be associated with aspects of language ability (speaking and listening) across both tests, these tests do, in general, appear to measure the same abilities. That the other two factors appear to be associated in part with specific tests suggests that some of the observed differences in performance across the two test batteries are attributable to differences in the methods used in testing.

TABLE 7
Exploratory Factor Analysis of FCE Papers and ETS Tests

VARIABLE	COMMUNALITY
FCE Paper 1	.58958
FCE Paper 2	.52228
FCE Paper 3	.66459
FCE Paper 4	.48009
FCE Paper 5	.42786
TOEFL 1	.59892
TOEFL 2	.60101
TOEFL 3	.61938
TEW	.39597
SPEAK GRAM	.80465
SPEAK PRON	.62949
SPEAK FLCY	.77734
SPEAK COMP	.89563

FACTOR	EIGENVALUE	% OF VAR	CUM %
1	7.48415	57.6	57.6
2	1.32523	10.2	67.8
3	.65258	5.0	72.8
4	.57734	4.4	77.2
5	.55311	4.3	81.5
6	.50183	3.9	85.3
7	.38833	3.0	88.3
8	.37212	2.9	91.2
9	.34312	2.6	93.8
10	.27587	2.1	96.0
11	.25262	1.9	97.9
12	.20044	1.5	99.4
13	.07325	0.6	100.0

TABLE 7 (Continued)
Orthogonalized Factor Matrix with Second-Order General Factor

	GENERAL FACTOR	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	h ²
FCE Paper 1	.754	-.031	.078	.175	.104	.617
FCE Paper 2	.711	.074	-.023	.270	.002	.584
FCE Paper 3	.820	-.026	.028	.341	-.004	.789
FCE Paper 4	.704	-.004	-.048	.053	.236	.556
FCE Paper 5	.621	.173	-.028	.015	.165	.443
TOEFL 1	.776	.058	.059	-.043	.284	.692
TOEFL 2	.680	.049	.573	-.004	.010	.793
TOEFL 3	.711	-.085	.419	.032	.102	.699
TEW	.581	.074	.223	.097	.012	.402
SPEAK GRAM	.642	.621	.015	-.000	-.000	.798
SPEAK PRON	.707	.333	-.026	.131	.030	.630
SPEAK FLCY	.676	.555	-.021	.007	.045	.767
SPEAK COMP	.705	.719	.040	.011	-.034	1.018
Eigenvalue	6.401	1.377	.570	.252	.189	8.789
% of h ²	49.200	10.600	4.400	1.900	1.500	67.600

DISCUSSION

Adequacy of Sample

In terms of test performance, the sample subjects were representative of both the December, 1988 FCE candidature and "typical" ETS test takers. In terms of test-taker characteristics, the sample subjects were similar in age to ETS undergraduate degree planners, but they included a higher proportion of female test takers than in the general ETS population. Since little is known about the characteristics of typical FCE candidates, no generalizations can be made in this regard.

Reliability

FCE Papers 1, 3 and 4 were somewhat less reliable than the ETS tests, while the reliabilities of Papers 2 and 5 could not be estimated. Although this does not necessarily mean that Papers 2 and 5 are unreliable, the inability to estimate their reliability is a recognized deficiency that will be remedied through the on-going program of research and development described below.

Comparability of Abilities Measured

The factor structure for any given set of test scores will be a function of both the profile of language abilities of the specific group(s) of individuals tested and the characteristics of the specific tests used. The large proportions of variance accounted for by the general factors in our analyses suggest that the FCE papers and ETS tests administered in this study appear to measure, to a large degree, the same common aspect of the language proficiency of the subjects in our sample. We feel that at present there is no basis for interpreting this general factor as anything other than a common aspect of language proficiency shared by these subjects as measured by these tests. That is, this general factor does not necessarily represent the same aspect of language proficiency as do the general factors that have been found in other sets of language tests with other groups of subjects (e.g., Oller, 1979; Carroll, 1983; Bachman & Palmer, 1982; Sang et al., 1986).

In addition to a common, general aspect of language ability, the test batteries in our study appear to reflect shared specific abilities and different testing formats. The primary factor that accounts for the largest proportion of variance is associated with measures of speaking, especially the SPEAK. The primary factor that accounts for the least amount of variance is associated with measures of listening. The FCE oral interview loads almost equally on both the speaking and listening factors. A third primary factor (associated with ETS measures of structure, reading and writing) can be identified as an "ETS written test factor," while a fourth primary factor (associated with the FCE measures of structure, writing and reading) can be identified as an "FCE written test factor."

Score Comparisons Across Test Batteries

Since the forms of the FCE and ETS tests of EFL examined in this study appear to measure nearly the same aspects of the subjects' English language proficiency, score comparisons across tests are justified and could be made in a meaningful way. However, because of differences in the levels of reliability across the two test batteries, as well as a lack of demonstrated equivalence of different FCE forms, such score comparisons could best be made on the basis of subsequent studies, once reliability and equivalence are better assured.

Future Research

This study has provided an opportunity for Cambridge to study its EFL examinations in a way that has not generally been done in the past, which includes an on-going program of research and development consistent with the long-range objectives of the study. This research, which will address both practical test development issues and research questions that are of theoretical interest to the field of language testing, currently includes the following specific projects:

1. *The investigation into the reliability of Paper 2 and Paper 5 ratings.* This will involve a 3-facet G-study for Paper 2, with rater, occasion and topic as facets, using papers from several different administrations, as well as a 3-facet G-study for Paper 5, with interview mode (individual vs. group), rater and occasion as facets, using taped interviews from the June 1990 administration.
2. *The investigation into the comparability of FCE forms.* This will involve two stages: 1) investigation of content and comparability, followed by the establishment of procedures for insuring content comparability across forms, and 2) investigation of statistical equivalence of forms.
3. *The investigation into the relationship between test content and test performance.* This will involve both a continuation and extension of the type of analyses of this study's data that have been reported elsewhere and the content analysis of new forms of the FCE.
4. *The investigation into the relationship between test taker characteristics and test performance.* This will involve the analysis of data on test-taker characteristics in this study as well as the development of a questionnaire to be used to operationally gather such information on a regular basis.
5. *The investigation into the relationship between self-reported test-taking strategies and test performance.*
6. *The setting of standards for the content, design, development and use of language proficiency tests.* These would initially be standards to be used by Cambridge for its own EFL exams, but would hopefully provide a basis for developing more general standards for language tests.

Contributions of This Study to Language Testing

One of the most pressing issues in the field of foreign language testing at present is that of defining the construct "communicative competence" precisely enough to permit its assessment. A related issue involves defining what we mean by a "communicative" or "authentic" test and determining whether test takers perform differentially on "communicative" and "non-communicative" language tests. These issues are of crucial importance for the development and use of language tests, since considerable effort is currently being expended in developing "communicative" language tests to measure "communicative competence" or "communicative language ability." The content analysis instruments developed as part of the CTCS, based on theoretical models of communicative language ability and test method facets (Bachman, 1990), provide a starting point for accurately describing the content of language tests and for investigating the relationship between test content and test performance.

Furthermore, while the focus of the CTCS was not on construct validation, much of the information that was gathered about the measures examined is relevant to the validity of construct interpretations. In this regard, the finding that measures as diverse as those examined in the CTCS tap virtually the same sets of language abilities is remarkable, although not particularly surprising, given the long history of such findings in language testing. At the same time, it is encouraging to find both that the theoretical constructs which are claimed to inform the measures are reflected, to a large degree, in patterns of performance and that the methodological approaches employed are useful in making these patterns interpretable.

Since the CTCS employed a variety of empirical research approaches, both qualitative and quantitative, the experience gained may thus be useful not only for continued multi-modal research, as has been proposed by Bachman & Clark (1987), but also for future test comparison studies. While some operational procedures that were planned had to be either changed or abandoned in the course of the study, we believe that in general the CTCS design, procedures and analyses provide a useful model for the comparison of different batteries of language tests.

Finally, the CTCS explored the complexities of cross-national comparative research, which involve issues such as the types of negotiations and compromises that are necessary in such

studies, whether these compromises vitiate or enrich the results of cross-national research and whether the results are worth the effort. This complex topic is taken up in Davidson & Bachman (forthcoming). Suffice it here to say that although we feel the CTCS illustrates the benefits to be derived from cross-national comparison studies, we have no delusions of having resolved these issues in this study. However, by bringing them to the fore we believe we have made some contribution to a better understanding of the similarities and differences between two approaches to EFL proficiency testing, an understanding that we hope will spur collaborative projects in which the subjective, qualitative judgments of "experts" are complemented by objective, quantitative research and development methods.

Notes

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Orality, Oral-Based Culture, and the Academic Writing of ESL Learners

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Although ESL learners are often quite sensitive to interference of their native language in second language writing, they tend to be less aware of the interference of native culture rhetorical patterns in writing Western academic exposition. Conceptually and pedagogically, however, the construct of interference is inadequate because it implies that native linguistic and rhetorical abilities must be suppressed in order to achieve competence in the target culture's discourse. An alternative approach is to recognize that many native culture rhetorical patterns can be integrated into the discourse norms of academic writing, even when these discourse patterns are oral-based. Expert writers learn to reintegrate oral-based discourse strategies into their writing after becoming aware of the differences between written and oral codes. Although the concept of oral culture is problematic, oral-based cultures can be identified. ESL learners from oral-based cultures thus need not completely divorce themselves from their native rhetorical patterns when they learn to write academic English exposition. Instead, they can learn to capitalize on certain oral-based discourse strategies, such as metaphor and narrative as proof, direct second-person address and elements of redundancy.

From time to time, we find sitting in our ESL writing classes an extraordinary writer whose voice (even in English) rings especially strongly with the cadences and tones of his or her native culture. Such a student is a mixed blessing: although we may relish

Intercorrelations Among FCE Papers and ETS Tests

APPENDIX C

	TOEFL 1	TOEFL 2	TOEFL 3	TEW	SPK	GRAM	PRON	FLCY	SPK	COMP	FCE 1	FCE 2	FCE 3	FCE 4	FCE 5
TOEFL 1	1.00000														
TOEFL 2	.55354	1.00000													
TOEFL 3	.56500	.71801	1.00000												
TEW	.43919	.54284	.51782	1.00000											
SPK GRAM	.58721	.43657	.38292	.38729	1.00000										
SPK PRON	.58578	.47240	.47637	.44754	.64102	1.00000									
SPK FLCY	.61371	.42348	.40753	.42906	.78855	.66837	1.00000								
SPK COMP	.64193	.47819	.44714	.43305	.89324	.74693	.87416	1.00000							
FCE 1	.60579	.57021	.62738	.44062	.47310	.52405	.50064	.53396	1.00000						
FCE 2	.53629	.51820	.50162	.47045	.50129	.56657	.48799	.53821	.57632	1.00000					
FCE 3	.58680	.62876	.63841	.52807	.49123	.59153	.52199	.54648	.69970	.66234	1.00000				
FCE 4	.61123	.44312	.49670	.42396	.49685	.52697	.52437	.53489	.52980	.49364	.56273	1.00000			
FCE 5	.55493	.40958	.40419	.36558	.54278	.53077	.56055	.57177	.45530	.45189	.47376	.49156	1.00000		

reading each assigned paper, we are duty bound to help that student move closer to the norms of Western academic writing. Consider the following passage, extracted from a paper written by a young Nigerian enrolled in an intensive English program:

My Japan and American parts made clock jangle a tone which woke me up. The nob of my door was cold like a frozen fish ... My insistent hand, now turned the nob which I assumed to be an ice block. Pushing the door slowly, with the first winter cold to fill my body. Galloped my memory OH! "SODUCO" I whimpered, I guess, that is the company where I bought a carton of frozen chicken when I was hosting my send off party to U.S.A. It's cold room of 30°F seems to be in the same atmospheric condition I am experiencing now. I cried in alarm, casting a glance outside at cold drizzle. "But the weather-" It glitters like the African stars' but not as much as a diamond...

This passage, like much of this student's writing, is marked by an indirectness in referring which frequently results in a humorous tone ("My Japan and American parts"). It contains a high density of metaphorical language ("my memory galloped," "glitters like the African stars"). Periodically, and without any prior foundation, a narrative element -- even direct quotation -- intrudes into the text ("I bought a carton of frozen chicken when I was hosting my send off party"). These features reflect the student's native rhetorical style, an oral-based rhetoric that is well developed in Yoruba culture (Asante, 1990). The result is captivating, but hardly acceptable in a typical American freshman composition class.

And so as teachers we wrestle with the issue of preserving what is authentic and vital in this student's voice, yet preparing him to function in a Western academic discourse community. We believe that those goals are compatible if we move away from thinking about the relationship between native and target discourse patterns -- or about the relationship between oral and written discourse patterns -- primarily in terms of *interference*. Instead, we propose that students can learn to compose strong academic prose by *integrating* oral-based rhetorical strategies in a number of ways. This paper, part of an on-going project to consider relations between ESL students' oral and written discourse, explores some conceptual and instructional dimensions of that alternative point of view.

INTERFERENCE IN L2 WRITING

Awareness of Language Interference

The notion of language interference helps account for certain dysfunctions in the writing of novice writers. The language interference account is associated most typically with second language (L2) learning situations, but also with prestige dialect learning (Edelsky, 1982; Wolfram & Whiteman, 1971). Instructors working with Chinese ESL students, for example, recognize that the relatively high frequency with which these writers omit articles ("John goes to store to buy book") is due to L1 interference: the Chinese language has no articles (Lay, 1975). Similarly, Spanish-dominant students writing in English produce predictable patterns of spelling errors in English writing that can be attributed to L1 interference (Garcia, 1975).

Students are well aware of this kind of language interference. They frequently mention specific structural differences between English and their L1 when we ask them to reflect on differences between their composing processes in L1 and L2. A Chinese student writes,

The difference is in grammar. We don't have words that can be add such as s to make it mean more than one. We also don't have words that can be add such as d or ed to make it a past tense. All we have are words that state the noun we talk about mean more than one thing. and words that tell the reader the event are in the past. instead of using ed or d.

Similarly, a Latin American student observes,

Sentences in spanish are longer, usually, and in many cases the subject is explicit [implicit?] and it is not necessary to be written. Besides punctuation is much easier in spanish. It is not necessary to separate 2 sentences with a period when talking about the same subject and as long as what you are writing makes sense.

Awareness of Rhetorical Interference

In addition to interference at the level of discrete features of language or mechanics, current interest in contrastive rhetoric (Kaplan, 1966, 1988) points to rhetorical interference deriving from

broad discourse schemata that may be indigenous to a writer's native culture. These patterns of discourse into which writers are originally socialized, patterns with which novice writers are most comfortable, constitute the writer's native rhetoric (R1).

For example, while narrative may be a universal element of discourse, it is well established that stories in various cultures also conform to certain culture-specific structural patterns. Japanese stories (Matsuyama, 1983) and Vietnamese stories (Schafer, 1981), by way of illustration, tend to dwell on character studies and on relationships between characters. Stories in these cultures may have little by way of plot and action -- elements that most Westerners regard as central to narrative. Culture-specific story schemata interfere with comprehension when readers from other cultures address such texts, even in translation (Kintsch & Greene, 1978; see also Bamitz, 1986).

Every culture, to be sure, sustains multiple rhetorics. Effective writers, no less than effective speakers, vary style as a way of accommodating to and constructing social context (Rubin, 1984). Within a single culture, differences between genres can be substantial, marked, for example, even by mutually exclusive lexical items (Toelken, 1969).

Notwithstanding this sort of register variation within languages, the notion of culturally conditioned rhetorics is still valid and useful (e.g., Oliver, 1969). Some cultures generally favor brevity and pithiness (Hymes, 1974). Some cultures value indirect reference and applaud cleverly obscure metaphors (Albert, 1972). Indeed, these discourse norms apparently dominate instrumental communication strategies, in addition to whatever currency they may have in expressive or poetic genres. In virtually all instrumental communication, however, of which academic prose is one form, North Americans presuppose an effort for clarity and "considerateness."

For ESL writers, then, native culture rhetorical strategies (R1) may be ill matched with patterns of expression expected by readers in the target rhetorical culture (R2). For example, some instructors notice that Japanese students learning to write in English may avoid sharply defined argumentative positions; what some Japanese students regard as appropriate "subtlety," their American instructors interpret as inappropriate "equivocation." In a similar vein, at least some instructors have observed that Chinese students learning to write in English resist the proclivity of Western

academic discourse for novel insight and unique expression; their R1 eschews prominent displays of originality (Matalene, 1985).

We have found that students are generally less aware of rhetorical interference from R1 in acquiring R2 patterns of discourse than they are of L1 language interference. In part this is because the focal awareness of many ESL writers dwells on matters of grammar and mechanics (Raimes, 1988). The obsession with correct surface form, in turn, results because many students have done little actual composing (as opposed to workbook exercises) either in L1 or in L2. They have thus neither attained a high degree of rhetorical sensitivity in writing nor developed a sense of writing as a rhetorical transaction wherein writers can influence real readers (Johnson, 1989).

Finally, another reason why many ESL writers are not attentive to R2 interference is that they have learned to write in L1 by mimicking R2 paradigms. That is, throughout their writing instruction in their native language they were exposed to models and methods that embodied (with varying degrees of quality) prototypical Western academic exposition. An essay is an essay, they are taught; its structure (mainly five paragraphs) is invariant across cultures. Formal schooling can thus exert an influence that dominates over national or ethnic culture (Scribner & Cole, 1973). A Taiwanese student shows the result of instruction in "generic" academic prose:

It is easy for me to write with Chinese. When I am writing something with Chinese, I always outline the topic of every paragraph first. And then follow the outline to write step by step.

Believing that contrasts with his English essay writing are due to limited L2 language proficiency, not different R2 discourse strategies, he continues,

But if I write in English, it is very hard for me. Although I still will outline the topic of paragraphs, I always can't follow the outline to write ... Sometimes I have a very good idea that I want to write down in the essay, but I don't know how to express by English.

Surely a student who has learned to write prototypical Western academic prose in L1 has some head start (for better or for worse) in writing academic prose in L2. And despite some

familiarity with the more or less universal (i.e., uniformly schooled) structures of academic discourse, many students do recognize ways in which R1 discourse patterns may diverge from their R2 target. An especially perceptive Japanese student confirms the observation that Japanese writers are loath to argue pointedly, that they systematically avoid what American readers might call "taking a point of view":

Most Japanese like to be ambiguous for everything even if they really have clear ideas or attitudes, because we Japanese believe ambiguity as a virtue. I have been disciplined to be fair to everything or everyone since I was a child. But this custom means "fair" as "not clear or not strong". Even in my school days, teachers used to instruct us such type of "fair" things: for example, when they discuss about differences between A and B, they like to value both advantages, not to disagree A or B strongly ... So when I have to write some paper, I often struggle to choose my hopeful idea from among a lot of general ideas and my honest emotional ideas!

Shortcomings of the Interference Model

Interference, whether from L1 or R1, is a problem. The metaphor suggests a signal, such as a radio signal, that is too loud. The signal carries noise, not information, and it must be filtered out to enable the target signal to come through with clarity. According to the interference model, the teacher's job is to help learners filter out L1 and R1 signals, to suppress those elements that diverge from the linguistic and discourse norms of academic English. Teaching methods to help mitigate interference include providing students with appropriate L2/R2 models of academic prose, focusing on contrastive analyses in classroom exercises and providing feedback from "authentic" L2/R2 readers, such as American college student peers.

Instruction to eliminate linguistic and cultural interference, however, too often results in a sort of sanitized prose. One Korean student writes,

Whenever I write a letter to my friends, I seem to meet my friends in front of me ... Sometimes I write a poem in letter. Some kind of feeling occur into me, I can write a poem with Korean. Compare to writing a letter with English and with Korean, I cannot do well with English as I do with Korean.

Writing a letter with English never occur any emotion into my mind and heart. Just I write a letter a kind of forms.

Besides the frequently negative impact on voice and liveliness in student writing, the effort to eliminate R1 interference, in particular, has undesirable sociopolitical dimensions. Literacy is not some monolithic, value-neutral set of procedures for getting from thought to expression. Instead, various types of literacies embody different sets of values (Bizzell, 1988; Gee, 1986). For example, the patterns of discourse that constitute Western academic prose are geared toward *transforming* knowledge into new perspectives, but other cultures adhere to rhetorics which avoid transformations in favor of *reproducing* knowledge (Allen & Rubin, in press; Street, 1984). Similarly, Western essayist literacy demands that writers draw explicit conclusions for their readers, but other cultural rhetorics may systematically avoid such directness because it is regarded as insulting and alienating to readers (Scollon & Scollon, 1981).

Instructors who undertake to eradicate R1 interference in student discourse are generally sensitive to the fact that they are participating in a sort of cultural imperialism. Irvine & Elsasser (1988) suggest one antidote to the imperialist stance: allow for greater integration of indigenous language patterns within the superimposed essayist standard. Thus, by way of illustration, they argue that Caribbean students ought to be allowed and encouraged to use R1 forms of humor and Calypso in their R2 academic writing. Linn (1975) advocates a similar approach and calls for integrating the R1 patterns of inner-city African-Americans into their formal essay writing.

The interference model, in sum, may be a useful tool for analyzing inter-language and inter-cultural influences on student expression, but as an instructional tool it has severe shortcomings. Efforts to eradicate R1 interference, to the extent that those efforts are "successful," are likely to result in sanitized, colorless writing. Efforts to eradicate R1 interference, moreover, place the instructor in an ethically untenable sociopolitical posture: the composition teacher as colonizer.

Put another way, the interference model casts the learner's L1/R1 competencies as a form of pathology and the instructor as a surgeon excising the malfunctioning tissue. Friere (1970), pointing out the inappropriateness of pathology/cure-oriented models of education, instead proposes developmental models more consonant

with an agricultural metaphor (planting seeds and creating optimal conditions for their growth). By turning to accounts of developmental relations between oral and written discourse in L1, we identify a notion of integrating rhetorics as an alternative to the interference model.

INTERFERENCE AND INTEGRATION IN L1 WRITING

Differentiating Speaking and Writing in L1 Development

When children initially acquire writing in L1, an important set of achievements revolves around their ability to differentiate written language from oral (Cook-Gumperz & Gumperz, 1981; Kantor & Rubin, 1981; Olson, 1977). They must learn, for example, to use endophoric pronoun reference rather than exophoric ("Our family has always regarded the vase on our mantel with great awe," rather than "We have always regarded it over there with great awe"). Similarly, young writers must also learn to use transition statements and conjunctions to explicitly mark logical relations between ideas ("If you tell the teacher *then* everyone in the class will be in trouble," as opposed to the more oral-based "You tell the teacher *and* we'll all get in trouble").

With cognitive and linguistic maturation and with broad experience in writing, most L1 writers do succeed in developing styles appropriate for written communication contexts and in breaking away from inappropriate reliance on oral-based patterns of expression. But for some individuals, a great deal of the time -- and for most individuals, at least some of the time -- a residue of oral communication strategies can interfere with effective writing (Farr Whiteman & Janda, 1985; Shaughnessy, 1977).

For example, a mainstream-culture, native English-speaking college student turns in the following prose as part of a final draft (typed and edited) of a term project:

Language barrier, perhaps, is the main reason in which children may find it difficult to learn. The three children this project will focus on spoke Spanish, Portuguese, and Chinese. When the family speaks in their home language, and the teachers at school speak in English, another barrier occurs. However Rita, one of the children, has made an extreme effort to learn how to speak English. The

willingness to learn plays an important role on the children's progress with their *now* language.

This passage is marked by the *semantic abbreviation* characteristic of much oral discourse (Collins & Williamson, 1984). Presuppositions (e.g., that these children were experiencing difficulty learning) and identifications (e.g., the identity of the first barrier against which "another barrier" is counterposed) are left implicit. In a prototypical speech situation, the interlocutor would probe and question to overcome any such uncertainty. The writer here also does little to establish topical coherence. In prototypical conversation, conversational partners might collaborate in framing a topic, or the links between topics might simply remain loosely associative.

Too Much Differentiation: Hypercorrection in L1 Writing

Another form of interference between oral and written expression comes about when people carry the distinction between oral and written discourse to extremes. In the normal course of development, most people, in their own languages, learn to differentiate writing and speaking appropriately. Some individuals, however, learn that lesson too well. In seeking to set their writing apart from their more comfortable and familiar oral patterns, these writers *hypercorrect* (Rubin, 1987).

Operating under the principle that "if it seems like natural language it must be wrong," hypercorrecting writers weigh down their syntax with grotesque nominal structures (e.g., "That the obnoxiousness of the fraternity's show of insensitivity could have bothered their guests was beyond their comprehension." For a compelling discussion of the role of nominalization in oral and literate modes of meaning, see Halliday, 1987). Hypercorrecting writers choose indirect over direct expression ("The tendency of the children to react to the scary parts was very noticeable"), and they often select terms or phrases that resemble legalistic formulae ("Their fears were diminished and reduced"). An otherwise interesting account of a visit to the Soviet Union, for instance, is marred by the following L1 writer's hypercorrect caricature of what academic prose is supposed to sound like:

To militarize the youth seems premature, but it allows the concept of war to become quite natural and moral. To a

stripling, who can only conceive of being invincible, the thought of serving the Motherland may seem a desirable and romantic state of being. Recent expressions of the Soviet government of a milder attitude toward avoidance of war, and even encouraging peace, are inconsistent with their basic political theology.

Integrating Oral and Written Strategies in L1

The error of hypercorrecting writers is their belief that speech and writing are dichotomous, mutually exclusive means of expression. On the contrary, written texts can be infused with greater or lesser degrees of orality, just as spoken utterances may be marked by varying degrees of literate style (Rubin & Rafoth, 1986; Tannen, 1982, 1985). Thus, for example, the extreme chattiness of newspaper gossip columns arises in part from oral features like direct address ("Just imagine, dear reader, how you would feel..."), exophora ("They're saying that it won't be long before...") and ellipsis ("Just being his daredevil self. That's how Prince Charles brushed off any speculation that...").

As experienced writers develop, they progress beyond the stage of simply differentiating between oral and written styles. With increased expertise, oral and written styles begin to reconverge (Kroll, 1981; Rubin, 1987). Writers become able to introduce elements of conversationality in their prose in order to create a voice and to establish rapport with readers, for clarity or for occasional emphasis. Certain language features contribute to that sense of authorial presence in writing: verbal rather than nominal style; relatively simple syntax, avoiding "periodic" sentences; and perhaps selecting Anglo-Saxon-based vocabulary rather than Latinate. Certain broad rhetorical features likewise contribute to orality in writing: use of narrative as a form of proof, tolerance for digression, extended metaphor and redundancy. An L1 student in a college developmental studies composition class, for example, works toward that integration of oral and written styles. He begins his essay entitled "Divorce":

Jane and Bob could be your neighbors. They happen to be mine, and I am worried about them. Jane and Bob are going to be married next month. They are both eighteen years old. Bob is a foreman at a mobile home construction plant and makes pretty good money. Jane is a receptionist for a doctor

and makes a little over one hundred and fifty dollars a week. Statistics show that a situation like Jane and Bob are in will end up in divorce. The chances are two out of three that Jane and Bob will not still be married three years from now. Even if they do last together for three years, they will have a fifty percent chance of divorcing tacked on for the next seven years until their ten year anniversary. If they last together for ten years, perhaps then their marriage will be safe. I hope so for their sake, and for the sake of our society which is being torn apart by too many young marriages ending up in pain and misery.

Effective instructional practices for L1 student writers exploit oral communication proficiency as a foundation for developing proficiency in academic writing. In *Beat Not the Poor Desk*, for example, Ponsot & Dean (1982) build upon students' familiarity with the orally-rooted genre of fable in order to establish patterns of concrete support for abstract conclusions in essay writing. Schultz's (1982) "Story Workshop" approach to teaching forms of expository and argumentative writing similarly encourages students to tap into a variety of familiar and lively oral genres in the belief that "[s]ince anyone who learns to write effectively uses these natural forms of discourse intuitively ... we make written expression more effective and greatly clarify and facilitate the process by which students learn to write when we develop a clear and active understanding of these natural forms of discourse and their connection to writing" (p. 2). Other approaches to integrating orality in the teaching of writing are reviewed in Rafoth (1987) and in Rubin & Dodd (1987).

Indeed, most people learn about adapting to audiences, about collaborating, about exploring a topic and about communicator responsibility primarily through spoken interaction. Composition instruction can guide student writers in extrapolating that knowledge from the realm of orality to the realm of academic writing. Such instruction is grounded in a concern for integrating speaking and writing; it is not obsessed with preventing interference of speech with writing.

ORAL-BASED CULTURE AND ORALITY IN ESL WRITING

Among L1 English speakers, then, orality is an element of mature writing style. Educators understand how to capitalize on L1

students' oral competencies in instruction leading to academic writing skills. This integrative approach harbors promise for working with students for whom L1 is a language other than English and for whom R1 is a rhetoric other than Western literacy-based academic exposition.

Problems with the Concept of "Oral Culture"

Since considerable controversy attends the construct *oral culture*, one must exercise caution in using that construct to categorize some subset of speakers or writers. In what Bizzell (1988) calls the "Great Cognitive Divide theory," similar to what Street (1984) characterizes as the "autonomous model of literacy," orality becomes associated with certain modes of thought: concrete rather than abstract, situation-bound rather than inferential, holistic rather than analytical (see Ong, 1982; see also Gee, 1986 for a useful review of seminal writings on oral culture). The emerging consensus holds, however, that it is not literacy or orality *per se* that govern modes of thought, but rather the critical factor is the way cultures use literacy or orality for epistemic purposes (Allen & Rubin, in press).

Further complicating the notion of oral culture is scholarship that sometimes glosses across orality as a trait of (1) communication process, of (2) individuals or of (3) cultures. Generalizations that may hold about the *process* of engaging in speech as opposed to engaging in writing (e.g., the process of writing is more apt to function as a cognitive facilitator) do not necessarily hold for contrasts between highly literate as opposed to less literate *individuals* (e.g., highly literate individuals have greater metalinguistic awareness). And none of these generalizations necessarily extend to comparisons between literate as opposed to oral *cultures*. One cannot readily predict the cognitive status, for example, of a highly literate individual who happens to be a member of a largely oral culture, engaging in oral communication.

It is also problematic to consider the parameters that might reasonably set apart an oral from a literate culture. If an oral culture is one in which no one engages in literate behaviors, then it is virtually a null set as we approach the 21st century. Because of the shifting relationship between orality and literacy (i.e., writing-like speech and speech-like writing), some scholars have simply abandoned the concept of oral culture as inherently misleading (e.g., Tannen, 1985).

The Concept of "Oral-Based Culture"

Still, consistent with the notion of contrastive rhetorics -- i.e., the principle that cultures embody characteristic ways of meaning and expressing and interpreting -- there remains considerable utility to the concept of oral-based culture. (We use the term "oral-based culture" to distance ourselves at least partially from the oversimplification inherent in "oral culture.") We want to claim, for example, that a person who writes conforming to an oral-based rhetoric presupposes a certain intimacy, a commonality of purpose and background with the reader, a relationship of solidarity and good will.

Viewed in this light, the distinction between oral-based and literacy-based cultures bears some similarity to Hall's (1976) well known distinction between high-context and low-context cultures. In a high-context culture, as in an oral-based culture, much shared meaning is presumed. In such cultures, spare or loosely organized texts are therefore adequate for conveying "new" information to listeners or readers. Hall, in fact, characterizes Chinese literacy as high-context: the meaning of a particular orthographic character is not easily inferred unless one is privy to shared prior knowledge about the history and associations of symbols in Chinese culture.

One effect of oral-based (or high-context) presuppositions is that the onus for intelligibility shifts a bit from the writer to the reader. As Zellermeier (1988) observes with respect to fictive prose composed in Hebrew, the oral-based text may be perceived as "inconsiderate" by someone who is socialized into rhetorical norms that demand explicitness and clarity. In oral-based rhetorics, the reader is a cooperative reader, an effort-expending seeker of meaning rather than just a passive receiver of meaning (see also Hinds, 1987). Besides, if the reader is regarded as sharing a common world view with the writer, it can then be an affront to spell out that which is mutually understood.

Oral-Based Rhetoric in ESL Students' Writing

In reflecting on their composing processes in the L1/R1 as opposed to writing English exposition, some ESL learners are aware of this oral-based element in their native writing styles. A Spanish student writes,

In Spanish the writing process doesn't take place in an orderly way. Even though we have learned, rather than taught, that we should have an Introduction, body and conclusion in our essays, most of Spanish speaking people don't do it. We go from one thought to the other and back. If we remember we forgot something important, that's the way it works and people are used to understand a "messy" essay ... However, English papers make sense when written, read and comprehended with an English mind. English readers have an easier time when they read, whether it is a letter, a book of horror stories or a text book, the English writer makes life easier for the English reader.

One rather specific outcome of writing in a culture in which readers expect and tolerate a greater decoding burden is that discourse structures intended to guide the reader's processing, known as "metadiscourse" (Crismore & Hill, 1988), simply don't exist. A good many of our Japanese students, for example, tell us, as one student has said, that "Japanese don't have a first paragraph to tell what I going to write." Or,

Japanese writing style has no conclusion. And normal essay has only one paragraph ... Also, Japanese writing permits to ignore grammar ... Another different point is a Japanese writing has no style except poem, and polite letter.

Of course this Japanese student is quite mistaken in most of these assertions about Japanese writing. In fact, the paradigmatic macrostructure known as *ki-shoo-ten-ketsu* is well documented in Japanese exposition (Hinds, 1987). The point is that relative to North American norms for exposition, Japanese writing appears, even to this native Japanese writer, to be highly unstructured, lacking especially metadiscursive elements to guide the reader.

Another characteristic of oral-based rhetorics is their reliance on formulaic themes and expressions. Because literacy-based rhetorics place a premium on innovative expression, lack of redundancy and novel insight, Western academic prose avoids cliché and "tired, hackneyed" themes. Oral-based cultures, in contrast, encourage frequent use of traditional formulae; they are a way of celebrating and reproducing group identity (see, for example, Albert, 1972) with no surprises, no sneak attacks. Some students see their R1 discourse, accordingly, as more "sentimental" or "romantic." A Nigerian student describes some rules for using formulae in his oral-based culture:

In addition, we don't have vocabularies in Ibo, but we use proverbs in replacement of vocabularies. We use also idioms without idioms in your writing in Ibo, your sentences might not be superior. Furthermore, we use short stories in making an explanation of most of the things, which readers may be confused when reading. For example if you want to explain that a person was confused when he had two good-lucks at a time, you can put the story with another objects like saying that, "once upon a time crab was told that his trap caught a mighty animal, on his way to the bush to get this animal his brother met him on the way and told him that his wife had given birth to a baby boy. In this situation he was confused and don't know the one to go first. Then he was going front and back, that made crabs to have two heads.

Along with the lack of reader-based organizational cues and a preference for traditional themes and formulae, oral-based rhetorics favor what Cicero would have called "the grand style." High diction sometimes takes precedence over substance; redundant ideas are acceptable if they are a vehicle for euphonic words. Arabic-influenced styles, for instance, are profoundly tied to an oral-based rhetoric (Ostler, 1987) with a good many genres in Arabic culture exhibiting this sort of emphasis on voluptuous vocabulary and form. A handbook for introducing American business executives to Arabic cultures (Almany & Alwan, 1982) asserts,

The language of literary Arabic is one in which the form seems to count far more than the substance. That is, the writer appears to concern himself more with the impact on his reader of word arrangement and sounds than with the meaning such words are intended to communicate. As long as he pays attention to the grammatical and idiomatic aspects of his writing, a successful Arab writer has only to make it diffusely comprehensible: his duty does not extend as far as making his meaning clear-cut and unequivocal. (pp. 81-82)

While this handbook characterization of Arabic-influenced writing is likely too extreme, many ESL composition instructors will regard as fairly typical the florid diction but generally vacuous content in this sample from a Saudi Arabian student:

The occurrence of crime is different from state to state according to the culture, laws, and punishment. The percentage of it is depend upon the severity or lenity of

punishment. Because of the severe punishment in Saudi Arabia, the percentage of crime is reduced ... The main purpose of the severe punishment is to punish the society. Whenever the punishment is awesome, the percentage of crime is diminished. This rule conduced to the reduction of crime ...

In a like vein, a Nigerian student seems to push the limits of credulity in his journal entry, even as he displays surprisingly intense language:

I personally think that a research paper is one of the most interesting process of learning despite the fact that it seems a little difficult it enables a student to learn sagaciously. Similarly, I am filling ecstatic because it will be my first time of pressing my index finger on the key of a computer in research of one thing or another.

Flowery diction, formulaic themes and expressions, and lack of organizational cues are just three among several stylistic elements deriving from oral-based R1s. These, along with other features of oral-based rhetoric, fit well into the continua Purves & Purves (1986) enumerate for classifying cross-cultural differences in students' writing style: (1) personal-impersonal; (2) ornamented-plain; (3) abstract-concrete; (4) single-multiple aspects of topic; (5) prepositional-appositional connectives; (6) characterizing-narrating-dramatizing; and (7) message focused-reader focused. Using these dimensions, oral-based writing in both L1 and L2 can be characterized as personal, ornamented, concrete, multiple thematic, appositionally connected, narrating or dramatizing, and most likely message-centered (i.e., inconsiderate).

The impact of these R1 rhetorical patterns is not always so evident, however. Just as L1 English speakers often hypercorrect when overcompensating for differences between speech and writing, so is it common to find ESL writers producing the most voiceless, the most bland of compositions. A student from Oceania displays this type of hypercorrect vapidness:

Learning to speak a foreign language is not an easy task for anyone. However, children do have a distinct advantage over adults. One advantage is that children have not yet established a certain style of speaking which makes it easier for them to learn another language...Adults have established a certain style of speaking unlike children, who don't have a

particular style. This makes it harder for adults to change the way they speak, but children on the other hand can easily speak or "imitate" how others speak around them.

This notion of hypercorrection as stifling voice is consistent with Connor & McCagg (1987) who found little evidence of L1/R1 interference in ESL students' written paraphrases. Instead, those paraphrases were far more constrained by the structure of the stimulus texts, far more reproductive than was the case for L1 English writers.

LEARNING TO INTEGRATE ORAL-BASED DISCOURSE STRATEGIES IN ESL WRITING

Effective L1/R1 writers of English, we have claimed, learn to capitalize on elements of conversationality in their writing. For them, speaking and writing reconverge in certain respects (Rubin, 1987). By the same token, L2 writers of English who are most comfortable with oral-based R1s need not jettison their oral-based strategies altogether. To do so, indeed, would risk hypercorrect or at best voiceless prose. Instead, ESL writers can learn to exploit their oral-based strategies and integrate them into R2 writing.

Mangelsdorf (1989), for example, decries the separation of speaking and writing in ESL instruction and suggests a variety of classroom activities that combine oral and written production in some manner. In general, structured oral communication activities can contribute to writing in three ways (Rubin, 1987; Rubin & Dodd, 1987). First, speech can *accompany* writing, as in pre-writing discussion or peer writing conferences. Speech can also be an *adjunct* to composing processes, actually taking the place of behaviors usually enacted in writing. Such is the case when writers dictate their drafts or read their drafts aloud in order to detect errors. Finally, structured oral activities can function as *cognitive calisthenics* to increase writers' flexibility of expression. When learners are asked to take the roles of varying participants in some rhetorical transaction, they learn to incorporate more social contextual sensitivity into their writing.

But beyond deliberately structured classroom manipulations, ESL writers can simply be encouraged to become aware of their R1 oral-based strategies. Instead of suppressing them, they can experiment with them in their L2/R2 writing. In the terminology of currently ascendent pedagogical ideology, they can be empowered to use elements of their own authentic voices in their writing (see, for

example, Johnson, 1989). In more traditional terms, ESL writers can learn to incorporate oral-based stylistic elements -- metaphor and narrative as proof, direct second-person address, certain uses of redundancy, oratorical cadences, and so on -- that can enhance the effectiveness of their writing.

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Putting PUT to Use: Prototype and Metaphorical Extension¹

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This paper investigates the relationship between prototype meanings and frequency of use with a view to establishing a foundation for the problem of 'prototype acquisition.' Prototype theory has been widely used in fields such as psychology, linguistics, and first and second language acquisition. However, the question of how people acquire and then use prototypes has not been extensively investigated. In this paper, one polysemous basic verb, PUT, was selected, and an attempt was made to investigate whether prototypes of polysemous lexical items are determined by their frequency of use.

To determine the prototype of the verb PUT, a free elicitation test was used, in which native speakers of English (N=42) were asked to write the most typical sentence using PUT. The results yielded the following as the prototypical argument structure of PUT:

Subject	PUT	Object	Locative
[+human]	PTRANS	[+solid]	[+horizontal surface]
			[+small]
			[+alienable]

To investigate the meanings of PUT actually used in native speaker discourse, tokens of PUT in the UCLA Oral Corpus (spoken data) and the Brown Corpus (written data), each of which contain approximately 120,000 words, were analyzed. A major finding was that the prototype of PUT does not correspond to frequency of use. Specifically, PTRANS (= physical transfer) is not as frequent as NON-PTRANS which is a metaphorical extension from the prototype. This result is surprising since 87.8% of the native speakers surveyed produced PTRANS sentences as the prototype of PUT. The implications of the findings for both prototype theory and the acquisition of polysemy will be discussed.

INTRODUCTION

Basic verbs are, in most cases, polysemous (i.e., have multiple meanings). Previous research in the area of second language lexico-semantic development has shown not only that it is difficult for second language learners to correctly grasp the lexical boundaries of L2 lexical items, but also that learners acquire the central (prototypical) meaning of polysemous words more easily than less prototypical meanings (Kellerman, 1978, 1979; Tanaka & Abe, 1985; Graham & Belnap, 1986; Ijaz, 1986; Tanaka, Abe, & Takahashi, 1987). However, prototype theory, which has been used to account for the lexico-semantic development of L2 learners, is not without problems, though it has strong theoretical foundations of its own. Prototype theory was developed in the fields of psychology and anthropology, in the studies of basic color terms and their universality (Berlin & Kay, 1969) and in investigations of natural categories (e.g., Rosch, 1973). Similar ideas were proposed in the field of linguistics (Ross, 1973; Labov, 1973). The basic idea of the theory is that natural categories have an internal structure, some members being more typical, some members being less typical (i.e., marginal). Human ability to categorize is based on the prototypes of categories, category membership being defined in terms of the distance from the prototype. There is no necessary and sufficient condition for category membership.²

Prototype theory has been applied to linguistic analysis (Coleman & Kay, 1981; Bybee & Pagliuca, 1985; Shibatani, 1985; Lakoff, 1987) and psycholinguistic analysis (Pullman, 1983), first language acquisition (Bowerman, 1980; Dromi, 1987; Tanaka, 1987a; Adamson, 1989). Although there is validity in the studies based on prototype theory, I can identify (at least) three problems which have to be resolved for this theory to be fully accountable. First, it is not clear what a prototype consists of. How is the prototype represented in people's minds? Let us take as an example the natural category 'bird.' Is the prototype a specific exemplar, such as 'robin' or 'sparrow,' or is it a summary representation of a cluster of features such as, [+feathers], [+flying ability], [+two legs] (cf., Smith & Medin, 1981)? This is a representation problem. Second, we do not have established measures or instruments for eliciting a mental representation of a prototype from subjects. This is an elicitation problem. Third, it is not known how people acquire a prototype. Is it related to frequency? Is it determined during an

early L1 acquisition stage, and will it remain unchanged once it is acquired? This is an acquisition problem.

The purpose of this study is to conduct a contextual analysis (Celce-Murcia, 1980) of the polysemous basic verb PUT with a view to establishing a foundation on which to address the acquisition problem. I will investigate the use of PUT in the actual spoken/written discourse of native speakers and try to see how the frequency of different uses of PUT is related to the prototype of this verb.

SEMANTIC ANALYSIS OF (BASIC) VERBS

In this section, I will discuss three different approaches in the literature dealing with the semantics of (basic) verbs. The purpose of this section is not to evaluate these approaches, but to gain some insights for conducting a contextual analysis.

The Dictionary Approach

The dictionary approach is the standard approach for identifying the meanings of basic polysemous words (see Nida, 1975; Larson, 1984.) The procedure is to sample different uses of a word, categorize them into groups according to their similarity in meaning and then assign each group a meaning. The method is both a practical way to capture the meaning of polysemous words and is good for pedagogical purposes. Yet, as a method of linguistic analysis it has problems (Tanaka, 1987b, 1987c). First, the criteria for categorization can be very arbitrary and inconsistent. Secondly, this approach cannot differentiate the meaning inherent in a word from contextual information. Tanaka (1987b) gives an interesting example. In the sentence "John took some candies," the verb 'took' is ambiguous. But by generating additional contexts, the sense becomes clear in each case:

John took some candies and then got a stomachache.	---->	EAT
John took some candies and then got arrested.	----->	STEAL
John took some candies and put them on the table.	----->	SEIZE
John took some candies to Bill.	----->	CARRY

Therefore, the dictionary approach, which differentiates each instance above as a specific sense of TAKE, does not make clear what is inherent in an abstract basic word such as TAKE.

The Decompositional Approach

The decompositional approach identifies meanings of verbs by sets of primitive features (e.g., Schank & Abelson, 1977; Gruber, 1965; Jackendoff, 1978, 1983; Niedzielski, 1985). Jackendoff's (1983) work, for instance, which was developed on the basis of Gruber (1965), tries to characterize meanings of sentences by using a set of compositional features. A sentence such as 'Amy put the flowers in the vase' is represented as follows:

[event CAUSE ([thing AMY], [eventGO ([thing FLOWERS]
[path INTO VASE])])]]

(Jackendoff, 1983, p. 177)

More metaphorical uses of PUT (e.g., 'He put me in an awkward position') would be analyzed by using the notation 'GO circ' which means 'circumstantial (not physical) change of location'.³

Such a representation of verb semantics was proposed to explain all the possible occurrences of verbs. What is interesting here is that Jackendoff and Niedzielski, who have very different theoretical backgrounds, came to propose quite similar semantic features, though Jackendoff's are more precise. Nevertheless, the decompositional approach may be too general for identifying the different meanings of polysemous verbs. As can be seen in the above example, the various meanings of PUT are defined basically by [+CAUSE], [+GO], [+positional/+circumstantial].

The Prototype/Core Approach

Fillmore (1977) discusses 'scene semantics' which proposes that each word has some 'scene' attached to it and that our interpretation of the sentences in which a word occurs is constrained by that scene. For example, when we hear the word 'write,' we usually have the idea that the agent is human, that what is written is language of some kind, that the instrument is something like a pen/pencil and that some surface to be written on is present. We are therefore confused at first by the sentence 'The dragonfly writes' and subsequently try to understand it as metaphor/personification. The typical 'scene' called on by the word thus corresponds to the 'prototype' of the word. Tanaka (1987b, 1987c) develops this idea to explain the different meanings of polysemous verbs by their prototypes and metaphorical extensions. For example, Tanaka proposes that 'break the vase/glass' can be identified as the

prototype of 'break,' while different senses of 'break' (such as 'break one's heart,' 'break the tradition,' 'break the electric current') can be interpreted as metaphorical extensions of the prototype. In addition, to capture the semantic boundary of a word more precisely, he proposes a 'lexical core' as the meaning which is always present for all the uses of a word. This meaning is what is called 'core meaning' in linguistics. The lexical core of PUT is analyzed in Tanaka (1987b) as "to move human or thing to location or state" (p. 210).

Here again, what comes before and after the verbs -- the arguments -- is important in the analysis. Tanaka defines 'core' as 'context-independent meaning' and distinguishes it from 'context-dependent senses,' arguing that there is an abstract meaning which always exists for a word, whereas contextual information determines its different senses.

The implications of these studies are that (1) in order to analyze the semantics of polysemous basic verbs, it is necessary to look at the predicate-argument structure of the verbs, and that (2) the analysis of verb meaning itself has to be general/abstract to some extent. The problem of the dictionary approach is, as suggested above, that it cannot differentiate contextually determined meanings from the meaning inherent in the word. If we listed all the meanings defined by context, the list would have to be a very large one in the case of basic verbs which are semantically very general. The decompositional approach is also forced to rely on contextual information because any analysis cannot go further than [+CAUSE, +GO] without contextual information. The prototype/core approach also points to the abstract nature of basic verb 'meaning' and the importance of contextual information in determining the specific 'sense.'

METHOD

The method of 'contextual analysis' introduced by Celce-Murcia (1980) was used in this study because, as discussed above, contextual information is important for the semantic analysis of basic verbs. Contextual analysis, which may be considered a type of corpus/text linguistics, is quite suitable for this purpose since it "examines a linguistic form in order to determine where, why, and how frequently that form occurs in written or spoken ... discourse" (Celce-Murcia, 1980, p. 41). In contextual analysis, a particular form (word, phrase, structure, etc.) is chosen, and, by analyzing the

tokens of the form that appear in discourse, such things as its meaning, function and frequency are determined. For example, the method has been used to investigate the differences between clefts and psuedo-clefts (Kim, 1988), the functional differences among 'used to,' 'would' and simple past (Suh, 1989), the function of the conjunction 'and' (Lazaraton, forthcoming), the function of marked word order (Yang, 1989) and conditions on dative alternation (Williams, 1989). In this study, the method is used to determine the relationship between frequency and prototypicality.⁴

As suggested in the introduction, the acquisition of prototype is still an open issue. Frequency is supposed to play some role in prototype formation, but the relationship between the two is not clear. In Reed's (1972) experiment on artificial categories, a high correlation was not found between frequency and prototypicality, but we cannot claim this result to be generalizable to natural categories (Tanaka, 1987c). MacKay (1986) claims that personification is the prototypical metaphor, based on a frequency analysis of poems. His assumption is that prototypical metaphor occurs most frequently.

In the field of SLA, the relationship between prototype and frequency has also been discussed. Kellerman (1978, 1979, 1986) claims that L2 learners tend to transfer prototypical meanings of polysemous words in L1 to L2 more readily than less prototypical meanings. In discussing the factors that influence the acquisition of meanings, Kellerman (1979) suggests the possibility that "frequency may be a crucial, if presently untestable, factor" (p. 50) in determining coreness (i.e., prototypicality). Kellerman (1986) uses the term 'subjective frequency' (i.e., what native speakers believe to be frequent senses of a polysemous word) as a predictor of transferability and suggests that this is another measure of prototypicality. However, perceived frequency may not necessarily correspond to actual frequency in discourse. This study is thus an attempt to investigate whether there is a gap between prototypicality/subjective frequency and actual, observed frequency.

The data analyzed for this study consist of approximately 120,000 words of spoken data from the UCLA Oral Corpus (Celce-Murcia, 1987) and written data samples totalling 124,066 words selected from the Brown Corpus.⁵ The selected written data include Press: Reportage--Sports (15,908 words); Skills and Hobbies: Periodicals (76,825 words); Learned: Social and Behavioral Sciences (31,333 words). These topic areas were selected because they were thought to have frequent uses of PUT.

The research questions addressed are:

- 1 How is the basic verb PUT used in discourse? In particular, what appear as arguments of the verb?
- 2 What is the relationship between the frequency in discourse and the prototype?

The prototypical predicate-argument structure of the verb PUT was determined using a free elicitation test (the Prototype Test, developed by the researcher) in which subjects (native speakers of English -- TESL/Applied Linguistics students and faculty; N=42) were asked to write a typical sentence using PUT (for details, see Shirai, 1989).⁶ The sentence most frequently produced was 'X [+human] put(s) a/the book on the table/desktop.'

The prototype of PUT derived from this sentence is as follows:

Subject	PUT	Object	Locative
[+human]	PTRANS	[+solid]	[+horizontal surface] [+small] [+alienable]

PTRANS (=physical transfer) is defined as "the transfer of physical location of an object" (Schank & Abelson, 1977, p. 13).

DATA ANALYSIS

Frequency of PUT

To determine the frequency of meanings for PUT in the corpus data, all tokens of PUT were first categorized into idioms and non-idioms, the latter being the focus of this analysis. The reason for excluding the category IDIOM is twofold. First, psycholinguistic evidence suggests that idioms are "treated by humans as if they were ordinary, single lexical items" (Aitchison, 1987, p. 78). If this is the case, idioms have to be analyzed in a different way. Another reason for excluding PUT idioms is related to the next subcategory distinction that was posited: PTRANS (physical transfer)/NON-PTRANS (no physical transfer). In the case of idioms, it is very difficult to distinguish between the two. For example, 'put on glasses' involves physical transfer, but the mere fact of 'physical transfer' does not satisfy the meaning of the

idiom, since the glasses must be worn properly as a result of the action.

Two criteria were used to identify idioms following Sadock's (1974) suggestion that there are two dimensions in idiomaticity: one grammatical, the other semantic. If any item satisfied both criteria, it was categorized as an idiom and excluded from further analysis. The two criteria are explained as follows:

Grammatical idiomaticity

It is possible for the verb phrase to have the form 'put + particle + object.' In other words, it can function as a single transitive phrasal verb. Thus, 'put X together' can satisfy the criterion of grammatical idiomaticity since it can take the form 'put together X,' whereas 'put X on a sound basis' does not because it cannot take the form 'put on X a sound basis.'

Semantic idiomaticity

The verb phrase is not categorized as a "literal phrasal verb" (Fraser, 1976). Thus, 'put up the microphone' is not categorized as an idiom because the mere fact of transferring physical location constitutes the meaning of this expression; it should be interpreted literally. 'Put up the basket' in basketball, on the other hand, is an idiom.

As an illustration, the two tokens of 'put in' in the following examples were categorized as idioms because both satisfy the above two criteria. 'Put in' here can be, or is, used as a phrasal verb, and the meaning is not just PTRANS, but 'to plant':

wanna put something in now?

This is an excellent time to put in carrots

(Garden Lady -- UCLA Oral corpus)

In the first example, particle movement can be observed with 'something' as an object. In addition, neither of these examples is a literal phrasal verb because both involve something more than putting A (object) in B (place).

This method of identifying idioms is specific to this study; I do not claim it is applicable to studies with different purposes. It is impossible to make a general dichotomous distinction because idiomaticity is relative and should be considered in terms of a continuum (Bolinger & Sears, 1981). Compromises must be made,

therefore, in order to categorize data which are continuous rather than categorical.

As mentioned above, after the idioms were excluded, the remaining tokens were then divided into PTRANS and NON-PTRANS. This division was made because I found it useless just to count frequency without specifying the role/meaning of PUT in a sentence. For example, even if the form is the same, 'a book' in 'put a book on the table' and the same form in 'put a book to use' are quite different in their semantic content in relation to PUT.

In order to validate the reliability of the classification, two linguistically sophisticated native speakers of English were asked to classify approximately 20% of the tokens into the categories used by the researcher (i.e., IDIOM/NON-IDIOM; PTRANS/NON-PTRANS). Items over which the raters and the researcher disagreed were discussed until a consensus was reached.

The frequency data of the lexical item PUT found in the two corpora are shown in Table 1.

TABLE 1
Frequency of PUT
Speech vs. Writing

	Speech		Writing	
	No.	Frequency*	No.	Frequency %
PTRANS	34	.28	21	.17 39.6
NON-PTRANS	48	.40	23	.19 43.4
IDIOM	46	.38	9	.07 17.0
OTHER**	8	.07	0	.00 0.0
TOTAL	136	1.13	53	.43 100.0

* Frequency per 1,000 words, calculated according to the following formula:

frequency per 1,000 words = $1,000 \times (\text{raw frequency count} / 120,000)$

** The tokens which were not categorizable are in this category.

The numerical differences⁸ between the oral data and the written data can be summarized as follows:

1. The frequency of PUT is higher in the spoken data.
2. The percentage of idioms is higher in the spoken data.
3. NON-PTRANS is more frequent than PTRANS both in the spoken and the written data, though the difference is not great in the written data.

The first observation corresponds with the data in Francis & Kucera (1982) which dealt with the frequencies of the entire Brown Corpus (out of a total of 1,136,854 words, the frequency of PUT in the whole Brown Corpus is .51 per 1000 words). In the present study, PUT appears more than twice as frequently in spoken data as in written data. The relatively low frequency of PUT in written text is probably due to stylistic reasons since repeated use of the same high frequency word is not desirable in writing, and a writer has more time to choose different words than a speaker does. The high frequency of idioms in the spoken data is also not surprising.

The third important observation is that PTRANS is less frequent (both in oral and written data) than NON-PTRANS and that the difference is greater in speech than in writing. This finding sharply contrasts with the results of the Prototype Test in which PTRANS was predominant among the native speakers' responses. The implication of this finding will be discussed in detail in the discussion section.

As stated in the previous sections, an analysis of arguments (subjects, direct objects, locatives) was undertaken whose focus was the semantic properties of the arguments, not the formal properties. As Lloyd-Jones (1987) notes, it is difficult to categorize NPs by their semantic properties; it is inevitable that there will be many fuzzy cases. I would therefore not claim that the classification is absolute. Also, I do not report information on how many pronoun/common noun NPs appeared in the corpus. In fact, subjects and direct objects of the verb often appeared as pronouns. The difficulty in the analysis was to determine the referent of those pronouns. (Thus, there were 8 cases in the spoken data which could not be categorized, as can be seen in Table 1. They are labeled as OTHER.) In the following, what I refer to as arguments of PUT do not correspond to the form in which they appeared, but to the referent of the form.⁹

SUBJECT

In the spoken data, it was found that all subjects of the verb PUT, including the idioms, were [+agent]. This verb thus seems to follow its selectional restriction pattern quite strictly. What is more interesting is that while only 7 cases of the 136 subjects are [-human] (e.g., missile, computer, society, situation), these 7 cases all seem to have some human property (i.e., personification). As

Shintani (1979) suggests, [+human] NPs seem to be the unmarked case for agents, while [-human] NPs are marked agents.

Direct Object

The data for the categories of PTRANS and NON-PTRANS are shown in Table 2.

TABLE 2
Direct Objects in PTRANS/NON-PTRANS (Speech)

PTRANS			NON-PTRANS		
	No.	%		No.	%
Prototype	27	79.4	information (specific)	11	22.9
-solid	1	2.9	(abstract)	8	16.7
-small	5	14.7	human	13	27.1
-alienable	1	2.9	abstract entity	7	14.6
			thing	6	12.5
			body part	3	6.3
TOTAL			TOTAL		
34			48		
100.0			100.0		

Examples
(plant, pear, soda bottle)
(bathwater)
(blanket and pillows, radiators)
(hands)

Examples

(initial, name, number)
(it, this, this thing)
(you, your/myself, a guy)
(fear, emphasis, focus)
(car, tax, money, property)
(foot, hand, finger)

What is important here is that as far as PTRANS is concerned, most of the direct objects are categorized as prototype (i.e., [+solid], [+small], [+alienable]). Moreover, the second feature [+small] is not very clear-cut; some of the items in [-small] may well be prototypical. As compared with the data on locatives (to be discussed below), this is quite remarkable. It seems PUT constrains/selects direct objects as well as subjects quite strictly.

In NON-PTRANS cases, many fixed expressions can be found, such as 'put (=write) your initial in X,' 'put (=express, phrase) it this way.' It should be noted that there was no case of a prototypical object ([+solid], [+small], [+alienable]) found in this

category. Though this is a little surprising, it is understandable if we consider that the nature of the category involves various extended meanings of PUT.

Locatives

The locative expressions were the next to be analyzed. The results are shown in Table 3.

PTRANS		NON-PTRANS	
	No.	%	Examples
in + container	14	41.2	(crate, box, basket, pot)
in + area	3	8.8	(spot)
on + surface	5	14.7	(bonnet, body, top, head)
adverb of location	11	32.4	(up, outside, there*, down)
0	1	2.9	(put water)
TOTAL	34	100.0	
NON-PTRANS		NON-PTRANS	
	No.	%	Examples
in	21	43.8	(+area (4), +place (2)),
on	14	29.2	(+human (4), age, list, hold)
into	4	8.3	(position, machine, context)
adverb	4	8.3	(there (2), here, away)
0 + Noun	2	4.2	(put it this/that way)
to	1	2.1	(put an end to it)
0	2	2.1	
TOTAL	48	100.0	

*It should be noted that it would be desirable to identify anaphoric 'there' in terms of its referent (i.e., ON X, IN X, etc.) from the context. However, it was not possible to do so with these data.

With the locative expressions, a pattern clearly different from the direct objects can be seen. Most of the direct objects were congruent with the prototype. Among the locatives, for which a variety of expressions are used, 'on + surface' occurred in only 5 out of 35 tokens, and the most prototypical case ([+surface]),

[+horizontal]) occurred only once (on the bonnet). 'IN X' has a much higher frequency (13 occurrences). In NON-PTRANS, too, 'IN X' is more frequent than 'ON X.' It appears that regarding locatives, the frequency is quite different from the prototype.

DISCUSSION

In this study, a large discrepancy in the use of PUT was found between frequency in actual discourse and prototype. First of all, the frequency of PTRANS was lower than that of NON-PTRANS, particularly in speech. This is an important finding since 87.8% of the respondents in the Prototype Test (native speakers of English) produced PTRANS sentences as their examples of the most typical use of PUT. Second, the most frequent locative expression following a direct object (i.e., 'IN X') was different from the prototype (i.e., 'ON X').

Taken at face value, these results have important implications. Let us consider their possible interpretation in relation to the methodological problems involved in this study.

The first possible interpretation is related to the sampling problem of the discourse to be analyzed. When we want to do lexico-semantic analysis, topic areas have a much stronger bearing on the result than in the case of syntactic/pragmatic analysis. Lexico-semantic analysis also requires a much larger corpus than syntactic analysis (Marianne Celce-Murcia, personal communication). The corpora used in this study (UCLA Oral Corpus, Brown Corpus) may not necessarily represent the typical linguistic environment of adult native speakers of English. In everyday language, native speakers may be exposed to (and use) more prototypical cases of PUT, but frequency of occurrence is very much dependent on discourse topic. The types of PUT a person uses might vary greatly depending on his/her occupation (e.g., housewives, construction workers, students, college professors, kindergarten teachers). Construction workers, for instance, might presumably frequently use PTRANS in giving directions to one another.

The second interpretation is that in early L1 acquisition stages, children may be exposed to (and use) the prototype, and, once the prototype is established, it may not undergo any major change. In other words, what is learned first remains most basic through the later stages of learning.

The third interpretation is that there may be some cognitive constraints on prototype formation. It has been claimed that prototype is universal (Berlin & Kay, 1969; Rosch, 1973). Tanaka & Abe (1985) call this the 'prototype hypothesis.' As an example, Tanaka (1987b) discusses the prototype of the preposition ON. The semantic boundary of ON and its equivalents are different across languages. In English it is possible to say 'on the wall,' 'on the ceiling' and 'on the table.' However, in Japanese/Korean, the first two uses of ON are not possible, and in French, 'on the ceiling' is not possible. Even so, the prototype is the same across the four languages: namely, [+surface], [+horizontal], [+contact] (e.g., on the table). Though further study is necessary in this area before making any claims, it is possible that the prototype formation of spatial prepositions/verbs is constrained by cognitive factors such as perceptual/visual saliency. All human beings have the same vision by which to view the world. If language is a way to interpret and represent the world, it should develop with a number of constraints that work across languages (cf., Takahashi, 1964; Jackendoff, 1983).

The fourth interpretation is related to the problem of the elicitation instruments and the narrow definition of the prototypical locative expression.¹⁰ The results of the Prototype Test may be due to an interaction between direct objects and locatives, which influenced the subjects' response. If 'book' is associated with PUT as the prototypical object, 'ON X' is more likely to be triggered. If 'ball' is the prototypical object of PUT, 'IN X' may be triggered. Alternatively, if 'ON X' is the prototypical locative expression associated with PUT, 'book' is more likely to be triggered as a direct object than 'ball.' The high frequency of elicited 'ON X' may be due to its 2-dimensional nature which is perceptually simpler and more salient than 'IN X' which is 3-dimensional and thus more general and less salient. It is thus possible that the prototype of PUT is wider in scope than hypothesized, with both 'ON X' and 'IN X' being prototypical, ON being unmarked, IN being marked in English (Marianne Celce-Murcia, personal communication). Recalling the representation and elicitation problems discussed earlier, if this interpretation is true, the actual frequency of prepositions in the corpus database is not very different from the prototype, as far as the PTRANS cases are concerned.

Another interpretation concerning the locative expressions is that the higher frequency of 'IN X' may be due not to the association of PUT and 'IN' but to the higher frequency of 'IN' in

English discourse in general. According to Francis & Kucera (1982), 'IN' appears 20,870 times in the over 1,000,000 words of the Brown Corpus, while 'ON' appears only 6,183 times. In view of this finding, the discrepancy between prototypicality and frequency in locative expressions may not be very important. It may be only natural that 'IN X' appears more frequently than 'ON X,' whether or not as an argument of PUT.

Another interesting point to be noted regarding the difference between 'IN X' and 'ON X' is that in the case of NON-PTRANS, 'ON X' is more frequent relative to 'IN X' than in the case of PTRANS. With PTRANS, 'IN X' appears in 50% of the tokens and 'ON X' in 15%, while of the NON-PTRANS cases, 44% are 'IN X' and 29% are 'ON X' (see Table 3.). What is important here is that for NON-PTRANS, which is a metaphorical extension of PTRANS, 'ON X' is used more often despite 'IN' being more than 3 times as frequent as 'ON' in English discourse in general. This finding may be interpreted as support for the hypothesis that "metaphor is based on prototype" (Tanaka, 1987c, p. 151). For example, when we say 'He is a snail,' it is assumed that both the speaker and the listener know the prototypical features of 'snail' -- its speed, appearance, etc. Without this knowledge, it is impossible to interpret the metaphor. If Tanaka's hypothesis is right, it is not surprising that 'ON X' occurs more frequently in the NON-PTRANS category than in PTRANS.

CONCLUSION

In conclusion, I would like to discuss the limitations of the present study and suggest some areas of possible future research. One of these limitations is the criteria of categorization, especially that for IDIOM/NON-IDIOM. An alternative approach would be to use psycholinguistic measures of idiomaticity by giving a number of native speakers a questionnaire (such as those used in Jordens, 1977; Tanaka & Abe, 1985) and asking them to rate the idiomaticity of the target expressions. Such a procedure might yield different results from the present study because the criteria used in this study are basically linguistic (grammatical, semantic) rather than psycholinguistic. For example, PUT in 'Let's put it this way' might be perceived as an idiom by most subjects, though in this study it is not treated as such. Since one of the reasons for excluding idioms from the analysis was psycholinguistic, it is important to explore this possibility. However, the methodology of idiomaticity rating

also faces the same problem of dichotomy and continuum. Psycholinguistic measures of idiomaticity have to be continuous rather than dichotomous. We would have to somehow operationally define the cutoff point without throwing away too much information.

Another limitation of this study is the subjects from whom the prototype was elicited. The subjects (TESL/Applied Linguistics students and faculty) may not be truly representative of the 'native speakers of English' population. Though an informal survey with a limited number of UCLA graduate students from various major fields did not show a different trend, it would be interesting to administer the Prototype Test to a less specialized sample to get perhaps more representative data concerning the prototype of PUT.

A third problem is the sampling of the corpora studied in the contextual analysis. Not only does it appear that the choice of topic areas has a strong bearing on the results, it is probably impossible to obtain a corpus that truly represents what is called 'native speaker discourse.' What we can do is try to approximate representativeness. If possible, we would select people engaged in several different occupations and record their daily conversation. The data obtained would likely be more valuable in addressing the research question: How do native speakers of English use PUT in their everyday language? If the analysis of such data yields the same results as the present study, the claims made here would be more reliable.

It would also be very interesting to study child language acquisition data to examine the frequency and function of PUT in the linguistic input and output of children acquiring English. L1 acquisition baseline data are stored on-line at Carnegie-Mellon University and may be accessible for such research. Such an undertaking would be important because there are few studies on the acquisition of prototypes and none, to my knowledge, on polysemous verbs.

Finally, the 'prototype hypothesis,' discussed earlier, should be examined more rigorously since this is an interesting and important hypothesis. If the hypothesis is true, it would explain why people acquire the prototype in their L1 regardless of frequency. If there are cognitive constraints on prototype formation, it would be only natural that prototype and frequency are very different. It would also explain why it is easy for L2 learners to acquire the L2 prototype.

One way to test this hypothesis would be to cross-linguistically study the semantic boundary and prototype of selected lexical items. If equivalents in different languages are found to have the same prototype, this finding could support the prototype hypothesis. I assume, however, that this hypothesis might not apply to all kinds of lexical items. Items whose meaning is socially determined would naturally lie outside the scope of the prototype hypothesis. We should therefore initially study lexical items related to visual/spatial cognition. Such research is very important in that it would be an attempt to define the scope of innateness -- i.e., what is universal in language acquisition.

The present study has shown that since actual frequency of use in native speaker discourse does not necessarily correspond to the prototype, the acquisition of prototype may not correlate with frequency. Although this study leaves open many questions to be resolved, it does provide a foundation on which to base further research in the analysis of basic polysemous verbs and their acquisition.

Notes

¹I thank Marianne Celce-Murcia, Evelyn Hatch and three anonymous reviewers of *Issues in Applied Linguistics* for their helpful comments on an earlier version of this paper. All the deficiencies are, of course, mine.

²For a comprehensive review of the prototype theory, see Taylor (1989).

³This is my own interpretation of the prototype theory, see Taylor (1989).
⁴I do not claim that contextual analysis is superior to the three approaches example using PUT but uses other verbs to exemplify the notion of 'GO circ.'

⁵I do not claim that contextual analysis is superior to the three approaches discussed above. The method is suitable for the purpose of this particular study.

⁶For details, see Francis & Kucera (1979).

⁷In the field of cognitive psychology, several methods have been used to elicit prototype, such as reaction time, free production and typicality rating. Having subjects write a prototypical member of a category is one such elicitation device (see, for example, Glass & Holyoak, 1986, p. 165). However, this plethora of methods is part of the elicitation problem. Further research is needed to see whether the method used in the present study is truly valid.

⁸This criterion was also intended to exclude 'phrasal verbs' which can take forms syntactically different from the prototype (put X on Y).

⁹In this paper, figures and percentages are presented without any statistical tests having been performed. Therefore, I do not claim any statistical difference among the data. Although chi-square tests are often used in frequency studies in linguistics, it is a questionable procedure which violates one of the assumptions (independence of data) of the chi-square test (see Hatch & Lazaraton, forthcoming).

¹⁰As for the analysis of arguments, I shall only report the results of the spoken data, since there were no important differences between the written and spoken data as they relate to the research questions. For details on the written data, see Shirai (1989).

¹⁰This interpretation does not therefore apply to the discrepancy between PTRANS and NON-PTRANS.

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Special Feature

Looking Back, Looking Ahead: An Interview with Evelyn Hatch

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Profile

Evelyn Hatch began her studies at UCLA in the 1960s, completing, in fairly rapid succession, a BA in political science, an MA in linguistics and a Ph.D. in education. This broad academic background reflects Evelyn's long and successful career in applied linguistics, during which she researched, published and taught in many areas, most notably in second language acquisition, discourse analysis, psycholinguistics and research methodology. Evelyn's interests have also taken her around the world: one of her most frequent stops has been Cairo where she was awarded the Ain Shams University Medal for Service to English Language Teaching in Egypt on the occasion of the 10th anniversary of the Center for Developing English Language Teaching.

In 1977, Evelyn founded the Second Language Research Forum, the only major conference in our field organized entirely by graduate students. The 1989 SLRF Conference at UCLA was dedicated in her honor. Upon her retirement from UCLA's Department of TESL & Applied Linguistics in November 1989, past students and colleagues established the Evelyn Hatch Award for Excellence in Graduate Research at UCLA in recognition both of Evelyn's own influential research career and of the help and encouragement she has offered to all who have worked with her over the years.

IAL is therefore pleased that Evelyn Hatch agreed to be the subject of our first Special Features Interview and answer several questions that people have always wanted to ask her but never found the opportunity to do so. Early this year, students and colleagues at UCLA, as well as everyone on IAL's electronic mailing list, were invited to submit questions for this interview. We thank the respondents¹ for their suggestions which included questions concerning Evelyn's personal experiences, her view of applied linguistics as a researcher and her role as an educator for future researchers. The interview was conducted at UCLA on February 28, 1990.

Personal Experiences

IAL: If you had your career to do over again, would you have done it the same way? Would you have selected the same fields of research? Would you have chosen university teaching again? And what things might you have researched that you didn't?

Evelyn: For sure I wouldn't do the same thing over again. That would be too boring; to do anything over is boring. My favorite magazine is *Natural History*. It's got all these wonderful articles every month on different bugs and different birds and different people in different areas of the world. That's the kind of thing I would like to be able to do. Every time I read an issue I think, "Oh, I'd like to go off to wherever and study this."

When I first started teaching ESL, I thought that was very, very interesting because I had a chance to go overseas and to meet people who were really, really different and to learn about people and what they thought about life and how they lived. It's like doing ESL but still doing a lot of anthropology for myself.

I always thought that I would return to Egypt and run an ESL program. That would give me all kinds of time to go to the Sudan and study birds, or go to Mersa Matrouh and study weaving, or go to the Sewa Oasis and look at all of the old caves there. So I always thought that's what I would like to do. Somehow I didn't. It kind of didn't happen.

When I came here, I really enjoyed studying linguistics and learning about how different languages are and how they work. It was like puzzle-solving of a different kind. I liked going to school a lot. I don't think that I would probably do teacher training or research in applied linguistics again. I don't know if I'd do ESL teaching either, but I'd do a lot of travelling and other kinds of natural history things.

IAL: Within the field of applied linguistics are there any fields that you would have liked to research and you didn't?

Evelyn: Oh, lots. For everything that I've done there are always ten or fifteen other things that I would have liked to have looked at. But I would have preferred just to have travelled a lot and have a good time and not so much work. My own kinds of things.

IAL: Which of your own articles and/or books are you most pleased with?

Evelyn: I think I have two favorites. The first one is the first book that I did, *Second Language Acquisition: A Book of Readings*.² That's out of print now. I had been doing some work in first language acquisition, and I didn't know that there was anybody who looked at second language acquisition. So when I started finding things that people had done, it was just really exciting for me. And to put those all together and be able to share them with other people, I really enjoyed doing that. That was a lot of fun. The other favorite is the *Linguistics for Teachers*.³ Maybe I'll eventually get around to publishing those materials. The reason that I like them is that each was a chance to share my excitement in learning about languages and how languages work. So I'd say, those two things are my favorites.

IAL: Why do you think the reason is that you were so successful?

Evelyn: It's really hard to say. Coming to UCLA and meeting Russ [Campbell] made me really realize that I could do in ESL all the things that I wanted to do. I didn't do them, but that it would be possible to do them. Right after I got my MA in linguistics, he hired me for the summer to work on a Navajo reservation. That was just wonderful. And he made it possible for me to go back to Egypt for the Ain Shams project. I enjoyed that tremendously. The trips to China -- even though I didn't do any work -- were really great, too. It's been wonderful to work with him. He has such a tremendous amount of enthusiasm.

Innate curiosity is probably the thing that has made my career the most successful for me. I don't know whether it has made it successful for students, but that is what has made me stay in the field. Without that curiosity and also without Russ there as a model, I probably wouldn't have stayed in the field.

IAL: Has being a woman influenced your career?

Evelyn: Of course. Impossible that it couldn't. It was freeing in many ways but also very restricting in many ways to be a woman in the department and in the field. It was freeing in a sense that when I first started writing I wrote very much in the traditional kind of APA format and everything very dry. After I had done that a while I just

decided if I had to write that way, I didn't want to write. So I just went ahead and wrote about what I wanted to write about, and I wrote the way I wanted to write. I think everybody thought, "Well, that's Evelyn. She's a woman, and it doesn't really matter." But that's okay. But if I had been a man, I would have been criticized much more for my writing style. I got criticized, but the expectations of how men do research and how they write are different than those for women. That was a very freeing kind of thing.

But I think it was very restricting in a lot of different ways in terms of advancement. There are real demands that are put on female faculty that aren't put on male faculty. You're always supposed to be helpful. I felt bad if I wasn't helpful. Being a woman you think of your role more as supporting. There are a lot of times when you have other little things you want to do. I burned out pretty fast because I was doing everybody's statistics and typing people's theses. I really did a lot of stupid things. Also I think as a woman I didn't feel I was just free to go whenever I wanted to, and that's hard when you want to go places and do things.

Viewing Applied Linguistics as a Researcher

IAL: What's the biggest mistake the field of applied linguistics has ever made?

Evelyn: I don't think that our field has made any huge mistakes. I think it has come close to it a couple of times when people were really pressing to have *one* sort of standardized received theory of language acquisition or one sort of narrow way of doing research -- that all research should be of a certain sort. But we have withstood that every time. So I don't really see that it's been a big problem. I think there have been a couple of times when people went to the Kuhnian notion of revolution of science and thought there has to be a theory, and then we modify it. I don't think that's true. There were a couple of times when people said, "Okay we should all be working towards one central theory. We should all be doing X because linguistics is doing that," that we should be like that. But people have said, "Oh that's not so interesting." Then they have gone off and done a lot of other interesting things. It has always worked out okay.

IAL: What do you see as trends in the short-term and long-range future?

Evelyn: What I see happening is a lot of interest, at least I think it's interesting, in modelling learning and language processing. If we were successful in setting up computer modelling of, say, individual speech events, and if we can model learning and other parts of the language, then we can also model lessons and model teaching. We could have a theory, then, that would include teaching within it or at least show what kinds of teaching assist learning. If we really had computerized lessons, we could test how people learn particular things by varying those factors on the computer. We could test a lot of our ideas about teaching and how they fit into the learning process. Computer technology -- I really sound like a technocrat! Horwitz⁴ did a questionnaire for Americans learning foreign languages at different universities. The study looked at what students said was the most difficult thing for them. For them it was anxiety and having to fit right in to what the lesson was. With really sophisticated computer lessons you can have individualized, customized lessons where there isn't any pressure on the learner. You could do all kinds of things that reflect parts of theories and integrate teaching and learning and theory all together. I think that's what's going to happen.

IAL: Do you think we could come close to simulating with a computer how the learner learns?

Evelyn: It depends on how sophisticated it gets. If you can't get enough different things going on at once, then I don't know if you will be able to or not. But if you get a really sophisticated model -- computers can handle parallel processing of lots of different kinds of information -- so you can move one kind of thing or do another thing and see what effect it has. I think that will happen eventually. Probably it will take a long time, but that's what I'd like to see. With computer-assisted instruction we could do all kinds of research on scaffolding. We could look at the effect of teaching much, much more than we have done so far. I think that would be really helpful to do something like that.

IAL: Is there someone, or some group, or some line of investigation that second language acquisition research should be paying more attention to or maybe less?

Evelyn: I think that we ought to be watching what Mike Gasser is doing. He's doing some work now on acquisition of rhythm in languages. Since rhythm and intonation seem to be among the very first things that children learn in first language acquisition, it would be really interesting to look at that, the effect of differences in rhythm across languages and the acquisition process. In fact, Martha Pennington gave a great paper on this at SLRF.⁵ I'd like to see a lot more work done on everyday metaphor also because our language is so filled with it. Looking at that cross-culturally would be very interesting, too.

IAL: Is there anything we should be doing less?

Evelyn: No. I think all research is useful. A lot of it I don't find attractive to me personally, but I think it is to others, and so anything that we do is worth doing.

IAL: Matthew Schall has a very interesting question on theory generation for you. "Historians of science often present the following model of the evolution of scientific method in a given field. First, there is description. Second, there is the application of simple mathematical models. These are invariably linear or additive and are usually initially considered sufficient for all cases. Third, after much acrimonious debate in the field's journals, more sophisticated models that accommodate non-linear or other unique characteristics in the field's data are developed." Matthew sees applied linguistics moving on from Step 2 to Step 3. What do you think?

Evelyn: I think it's a good idea, it's right on. But I don't see these steps as being steps that once you move to the next one you throw away the first step, or throw away the second one once you get to the third. Certainly we have learned a lot in the beginning by doing observational studies and collecting data and writing descriptions. We learned a lot from that, and we will continue to learn a lot from that.

After that, people became very much interested in a linear additive model. They were looking at lots of case studies and asking, "Is there a universal order in which things are learned?" There is a lot of interest in language testing, too, and people are wondering, "Are there many different dimensions to language learning or is there a one-factor solution?" They always come up

with a one-factor solution which masks the third non-linear kind of thing. But that's exactly what people *have* been trying to do: "Is there an order of acquisition for phonology, for syntax, for whatever -- is there some order and is it a universal order?" When you find variation, then how do you account for it?" People are doing that, and that's a very helpful second step.

We have moved into the third area -- without acrimony -- which is really the notion of things being so multi-faceted that it's almost impossible to talk about linear ordering; that things are multi-dimensional and that, as you shift focus in your speaking, or in your processing, or in your learning, then different things come to the fore instead of others. In the talk I'm giving at TESOL,⁶ I'm trying to use a metaphor which is very easy to understand. If you think of all the different areas in language -- like the structure of conversation, the structure of an interview like this, the structure of phonology, of lexicon and so on -- if you think of those all as a whole series of overhead transparencies with the light shining through, you're constantly shifting and moving them as you're trying to bring one or another part into focus. You're not attending to them all in the same way all the time, but they're constantly shifting. So a learner who's learning a language is trying to handle *all* of that, too.

So when you look at linearity (this is the order in which morphemes are learned or phonological features are learned or whatever), that's not what the learner is doing. If we want a theory that is going to look at real language performance as well as comprehension, then we need a much more sophisticated model and certainly a more sophisticated model in terms of statistics, too. Linear models just aren't going to do it. Matthew is exactly right. The only thing that's different is that I don't think that because you move from 1 to 2 it means that 1 is no longer of value, and moving from 2 to 3 means 2 is no longer of value. All are valuable. We can look at a very broad perspective or we can look at a very small part, and both of those are very valuable things to do. We can still do diary studies, too. I think we can still learn a lot from research at all three stages.

IAL: What psychological or social theory or philosophical model do you consider your work to be based on? Or is it grounded in your own empirical research and honed intuitions?

Evelyn: I'm really not sure. I have never really thought about where it fits, but I think maybe with Vygotsky, maybe Malinowski, maybe Bruner some, but I never really thought, "Okay, well, I like what so-and-so does, and I'm going to do this because it fits in with the way they view language." When you're doing empirical research you are also honing your intuition, and so it has to be both. Vygotsky has talked a lot about how teachers or parents help other people learn. Any theory of language learning has to include that in it somewhere. The work on foreigner talk is something like that; so is Barbara Hawkins's work on scaffolding.⁷ I like a lot of Bruner's ideas because he is willing to push experience and interaction as much as possible to see how much of language learning it will allow us to account for, rather than just saying, "Everything is innate," where you can't do anything about it. He has really said that teaching, whether it is from parents or whoever, formal or informal, is an important part of the process. So I like his work very much.

Educating Future Researchers

IAL: You are also an educator, and you did a lot of work helping graduate students. Do you have a philosophy that guides you in training future researchers?

Evelyn: I don't know [laughing]. I have thought about this question a lot, and I think that I have been successful in getting researchers to see that good design and appropriate statistics increase our confidence in claims that we make. I think that is something that Anne [Lazaraton] and I, in our research manual,⁸ have done a pretty good job on. I think that goal has been met.

But I have been a failure in a second kind of goal, and that is trying to get students to think of research as a discovery process rather than a product that you're going to publish. The statistical tools that you acquire will always help you see how much is left that you haven't accounted for, and that should raise awareness that there is no single answer, no answers that don't interact with other answers, and that answers can lead you on to even more interesting areas of investigation. Research is a discovery process. It's a discovery adventure. *That* I haven't been able to communicate very well to people. I think that's too bad.

I've had some other students who really view research in applied linguistics like engineering: you have a problem and you work out the best way to solve that problem. I know Brina [Peck]

is like that, and Larry Hunt is a person who's been like that. So it has always been a goal-driven kind of research, but I think that comes from them, not from me. There have been a lot of really good students in the program who have that kind of view of research, and they have done very very well.

We've done well in training people in research design and statistics. But the other part I don't know. Maybe I just don't see it. I don't see students getting all excited and saying, "Oh, wow!" and "This didn't work. Wonderful! I've got ten more ideas, and I'm gonna go out and do them." Everybody is working on their time pressures, publication pressures, grade pressures. What research is really about gets lost in that process.

I have had so many MA students come in and just be almost in tears because their research hasn't worked out, rather than saying, "Oh, this has been a wonderful process. It didn't work out, but it's been a process that let me learn about A and B and C, and I learned it," "I can gather data from kids," or "I've learned how to work with teachers who let me into their classroom to see what's going on," "I've been able to interview students and do it well." But they see that they didn't get what they expected to get, and they are real disappointed, and I think that's too bad. They think their work is worthless. They look at the product, and it isn't a perfect product, and so they're real upset. They are never thinking, "What was the process that I have been through? What did I learn from that process?"

I really think people ought to be motivated by what they want to do; that you ought to have your own motivation, and I know that in my teaching a lot of students have said, "Well, you didn't tell me whether you liked something or didn't like something." It's like, "I'm not your mother, you know. Did *you* like it? Did *you* learn something? What did *you* get out of it?" And that's what all of education is supposed to be about. It's not supposed to be pleasing your teacher, pleasing your mother. There ought to be a way of really improving people's intrinsic motivation -- Why did they get in to the program? What do they want to do? Why do they want to do it? -- and make it as interesting as possible for them. Give them a chance to do whatever they want to do. That's why the field should be broad. Everybody should get to do something of value.

IAL: Well, it's been a pleasure, Evelyn. Thank you.

Special Features Announcement

The Special Features section of *IAL* is intended to encourage direct professional communication and exchange on state-of-the-art issues in applied linguistics. There will be two main types of features:

Interviews

From time to time we will interview key figures in our field and elicit candid views on their careers and on developments in applied linguistics. For our inaugural issue, we interviewed Evelyn Hatch who recently retired from UCLA. Questions for the interview were solicited from colleagues via electronic mail (BITNET). Readers who would like their names added to our electronic mailing list so as to participate in future interviews may send their electronic addresses to: IHW1037@UCLAMVS. Upcoming interviews will be announced in future issues.

Roundtables

Roundtables will provide a forum for our readers to respond to philosophical and theoretical questions which ultimately affect how we do applied linguistics and how we might do applied linguistics in the future. As in this first issue, questions for upcoming roundtables will be announced in the journal. Readers, especially student readers, are encouraged to respond. Readers may also send in suggestions for interview subjects and roundtable questions. Please address all suggestions to the Special Features Editor.

Call for Contributions to *IAL*'s First Roundtable

Our next issue will feature readers' responses to the following questions:

**What is applied linguistics?
What should applied linguistics be?**

Responses must not exceed 500 words and should be postmarked no later than September 30, 1990. Please include a separate 50-word bio-statement.

Maria M. Egbert, *IAL*'s Special Features Editor, is a Ph.D. student in applied linguistics at UCLA. She has an MA in Foreign Language Education from the University of Georgia, Athens and an MA in German as a Foreign Language from the University of Bielefeld in the Federal Republic of Germany. Her current research interests include second language acquisition and conversational analysis.

Notes

¹Marsha Bensoussan, Marianne Celce-Murcia, Andrew Cohen, Grant Henning, Larry Hunt, Robert Kirsner, Martha Pennington, Matthew Schall, Meryl Siegal.

²Hatch, E. (1978). *Second language acquisition: A book of readings*. New York: Newbury House.

³Hatch, E. Unpublished materials for Introductory Linguistics course (Linguistics 100) at UCLA.

⁴Horwitz, E.K. (1989). Recent research on second language learners: Beliefs and anxiety. In D. Koike & A. Simoes (Eds.), *Negotiating for meaning: Papers on foreign language teaching and evaluation*. Austin: University of Texas, Department of Foreign Language Education Studies.

⁵Pennington, M. (1990). Universals, prosody and second language acquisition: The context of phonological development. 10th Annual Second Language Research Forum, Eugene, Oregon.

⁶Hatch, E. (1990). Integrating theory. 24th Annual TESOL Conference. San Francisco.

⁷Hawkins, B. (1988). *Scaffolded classroom interaction & its relation to second language acquisition for language minority children*. Unpublished Ph.D. dissertation, UCLA.

⁸Hatch, E. & Lazaraton, A. (in press). *The research manual: Design and statistics for applied linguistics*. New York: Newbury House.

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REVIEWS

Linguistic Theory In Second Language Acquisition by Suzanne Flynn and Wayne O'Neil (Eds.). Dordrecht: Kluwer Academic Publishers, 1988. 443 pp.

Reviewed by

Donna Lardiere

Boston University

There has been much debate over the past several years about the nature of the relationship between Universal Grammar (UG) and adult second language acquisition and about whether indeed such a relationship even exists. Many second language researchers investigating this relationship have often noted that, as originally formulated, UG theory does not concern itself with nor make direct empirical predictions for second language acquisition (e.g., McLaughlin, 1987; Flynn, 1983). This "lack of concern" for SLA, however, does not necessarily derive from some disqualification from consideration inherent in UG theory itself. Gass & Schachter (1989), for example, outline how a strong position on the possible relation between linguistic theory and second language data would look, noting that such a position (which they themselves do not subscribe to)

argues that linguistic theory, because it is a theory of natural language, must be tested against second language data to be validated. Thus any theory of language would be false if it failed to account for second language data ... Second language data can and should be used as evidence for distinguishing between linguistic theories, which, of course, attributes the power of falsification to second language data. (p. 5)

A "more moderate" position, they claim, would be to acknowledge that a theory of language could not be falsified by second language data if it were not intended to account for anything other than first

language acquisition, but could, however, be positively "enhanced" by evidence from such data. Likewise, Bley-Vroman (forthcoming), although arguing for the non-involvement of UG in adult L2 acquisition, remarks that "foreign language learning actually can in principle provide interesting evidence about the character of the domain-specific [acquisition] system" (p. 1).

Despite the conceivable differences between first and second language learners with regard to such things as prior linguistic and world knowledge or cognitive development, the null hypothesis that UG as a biological "computational system" constrains or underlies at least certain elements of what gets acquired in all human language -- whether 1st or *n*th -- remains to be disproved (for a discussion of this, see Schwartz, 1989, 1990, especially in response to what Bley-Vroman (forthcoming) has called "the logical problem of foreign language learning"). For editors Suzanne Flynn and Wayne O'Neil, it is the conviction that evidence from second language research (as well as from any other pertinent areas of study) can serve to inform a theory of UG, or linguistic theory in general, which lies at the heart of *Linguistic Theory in Second Language Acquisition*.

Such an approach, reflected in the introduction and twenty-two revised papers collected from the 1985 Conference on Linguistic Theory and Second Language Acquisition held at MIT, represents an important pioneering step in reformulating the questions of theoretical interest in a field which has largely been dominated by pedagogical concerns. By drawing upon the contributions of many prominent researchers from diverse areas of linguistic theory, this book manages to firmly integrate L2 research into "mainstream" linguistics. Nearly all of the material assumes some familiarity with generative grammar -- specifically with the Chomskian "principles and parameters" approach -- especially as it has been applied thus far to the study of first language acquisition. The volume includes a concise summary by Hale of the relevant key points of the "principles and parameters" theory, an historical overview of L2 research by Newmeyer & Weinberger, and a valuable discussion by Lust of some of the most basic issues of this theory in relation to both L1 and L2 acquisition.

In their excellent introductory chapter, Flynn & O'Neil outline some "basic assumptions" primary among which is the notion that adults learning a second language, like children learning their first, construct a computationally complex, structure-dependent

(i.e., hierarchical) representation of the target grammar unavailable by induction from surface data alone. Flynn & O'Neil demonstrate (as in other work by Flynn, e.g., 1983, 1987) the inadequacy of using exclusively either one of the two major traditional approaches to second language acquisition -- contrastive analysis and "creative construction." Instead they argue for the need to reconcile the inherent contradictions of both approaches while still retaining their essential insights, namely, that although prior L1 experience seems to play some role in the acquisition of a subsequent language, there may be certain common developmental patterns or "constructive processes independent of the L1 experience" (p. 6) which all L2 learners share. Flynn's adoption of a parameter-setting framework, to capture the insights of the two approaches while accommodating their apparent contradictions, is presented in a later chapter of the book.

Since the role of parameters is crucial to the theory of UG as currently formulated, its implications for L2 acquisition comprises one of the central issues, or perhaps *the* central issue, raised by the contributing authors in this book. Following Chomsky (1981), Flynn & O'Neil define parameters as

general organizing principles [which] isolate properties of structural variation in grammars. The particular value of a parameter will vary from one language to another, and this value must be learned in language acquisition in order to acquire a specific grammar. (p. 14)

In addition, the setting of a particular parametric value "entails a series of deductive consequences for the rest of the grammar that are hypothesized to follow automatically from this setting" (p. 15). Thus, within a UG framework, one of the crucial requirements of a theory of second language acquisition is a precise specification of how L2 parametric values and their "deductive consequences" come to be acquired, in light of prior L1 settings which may be the same or different (what the editors refer to as a "match" or "mismatch"). Although only five papers (those by Flynn, Clahsen, Travis, Jenkins, and Obler) are included in a chapter explicitly entitled "Parameters," discussion either of specific parameters or of general issues raised by parameter theory in relation to L2 acquisition may be found in most of the papers collected here, several of which I will briefly mention.

Flynn's own paper presents data on the setting (or re-setting) in L2 acquisition of the "head-direction" parameter (as formulated by Stowell, 1981).¹ Flynn claims that L2 learners are "sensitive to differences in structures between the L1 and L2, and apply the same principles that were applied in L1 acquisition" (p. 86). She uses data from native speakers of Japanese (a head-final language) and Spanish (head-initial) who are acquiring English (head-initial) to argue that when there is a mismatch between parameter settings (Japanese and English), acquisition seems to take longer, i.e., "corresponds to early L1 stages of acquisition of this parameter" (p. 86), whereas acquisition is facilitated when settings match (Spanish and English).

Clahsen, on the other hand, uses data from studies that tested two parameters on verb form and placement to argue that the rule systems developed by adult L2 learners lie outside of what a theory of UG would allow. He notes that (a) the acquisition of both correct verb placement and an agreement system are developmentally (and in fact causally) linked in child L1 acquisition but not in adult L2 acquisition and that (b) the availability of particular lexical and morphological items induces (or "triggers") the proper restructurings in child L1 grammars but not in adult L2 grammars. Clahsen argues, therefore, that adult L2 acquisition must follow from general learning strategies rather than from UG.²

The role of "word-order parameters" or, more specifically, of headedness, direction of case assignment, direction of theta-role assignment and direction of predication (Travis, 1984; Koopman, 1984) is discussed in the paper by Travis. She suggests studying the nature of L2 impairment in the agrammatic speech of Broca's aphasics, who acquired their second language as adults, in order to see if they still have intact representations of hierarchical structure as evidenced by word-order. In an astructural language system, she claims, "parameters of word order [which are formulated in terms of c-command, government, and X-bar theory] would have no relevance" (p. 98). Finding such structural evidence, on the other hand, would lend support to the hypothesis that UG was involved in the acquisition of the second language.

Other specific parameters are discussed in relation to L2 acquisition in the papers by Jenkins (on a VP configuration parameter), White (variation in permissible proper governors; bounding nodes), Liceras (preposition stranding) and Haegeman ("the modal parameter"). More general discussion of parametric

variation in L2 theory is found in the papers by Obler (on neurolinguistics), Lust (on the relationship between linguistic theory and empirical studies), Gair (on markedness), Eckman (on the relationship between UG and a language-typological approach), Macedo & D'Introno (on pidginization) and Rutherford (on competing theories of L2 acquisition). The paper by Mazurkewich, while not concerned with a specific parameter or discussion of parameters, investigates the marked/unmarked distinction (hypothesized to be a component of parameter theory) in the acquisition of gerunds vs. infinitives by L2 learners of English.

In general, these studies attempt to locate L2 research more precisely within UG theory (or outside of it, as in the case of Clahsen), by investigating the nature of the interactions among UG or biologically innate linguistic principles, the input available to the L2 learner and (as shown especially in the paper by Felix) other more generalized cognitive abilities of human adults. Were one to take the stronger position outlined earlier on the role of L2 data in linguistic theory (and judging from their introduction, I think Flynn & O'Neil would), then another goal emerges as well. That is, to show that if one claims that "UG no longer exists" in adults because L2 learners appear to violate one or another of its precepts, one is neglecting the possibility (or likelihood) that the parametric construct in question may itself be improperly formulated and that L2 data could be used to inform, refine or otherwise "enhance" a more correct reformulation in much the same way that L1 data are currently used.

A more relevant question from this perspective may thus be not whether UG remains "active" or "accessible" beyond a certain age (or beyond L1 acquisition), but precisely what in language UG applies to, given that it has never been claimed to account for *everything* in language acquisition; rather, UG is necessary primarily to constrain and account for phenomena of a largely syntactic nature for which little or no surface evidence is available to the learner. This issue brings us to another set of papers in the volume (by Broselow, Singh & Martohardjono, and Aitchison) which address L2 acquisition in other components of the grammar, such as phonology, morphology and the lexicon, and which raise the much broader question of how these levels of grammar are to be incorporated into a coherent, unified theory of language, in general, and a theory of UG, in particular.

It could turn out, then, that while perhaps crucial in some respects, UG may not have much to say about some of the things which give L2 learners headaches and which language textbooks devote so much of their space to: inflectional paradigms, vocabulary (and lexical subcategorization) and language-idiosyncratic elements, such as articles in English or formal vs. informal discourse elements, Japanese. UG, as a computational system, may facilitate the relative ease of interpretation (i.e., "computing") of anaphoric relations, for example, but it may be hard-pressed to aid in the acquisition of 3rd-person-singular -s in English, a process which may rely instead on some other learning mechanism (that apparently deteriorates with increasing age!). The importance of L2 data may thus lie in contributing, along with data from L1 and neurolinguistic studies, both to a more correct description of the various levels or components of UG and their interaction as well as to delimiting the scope of UG.

One of the most important contributions of this book is the introduction's rather neat delineation not only of a set of minimal requirements for a theory of second language acquisition, but also of a set of questions and issues to be addressed in future research -- "the right set of questions" at "the right level of analysis" (p. 18) -- which the editors have distilled from the papers collected in the volume. This convergence of ideas constitutes a kind of L2 critical mass which may well ensure that many of the questions raised in this volume will set the research agenda for second language acquisition in the foreseeable future. As such it certainly establishes the book as a basic reference text for theoretical issues in second language acquisition.

Notes

¹All parameter references are as cited in the papers themselves.

²Clahsen has since modified his position somewhat, arguing that L2 learners do have access to principles of UG only "insofar as these principles have instantiations in the speakers' native language" (Clahsen, 1989, p. 12)..

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Language Learning Strategies: What Every Teacher Should Know by Rebecca L. Oxford. New York: Newbury House, 1990. xxii+342 pp.

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One of the most important developments in applied linguistics in recent years has been the renewed interest in cognitive strategies. The strategies approach to communication/language learning seeks to discover the ways in which the learner conducts the communication/language learning processes. By analysing learners' overt forms of behavior, research on communication

strategies is focused on discovering how learners succeed in their communication, while research on language learning strategies is focused on discovering how learners organize or categorize the external language into cognitive structures. With the advent of communicative competence and the growing importance of communicative teaching methods, it is now evident that a fusion of communication/language learning strategies and formal teaching methods is necessary. Oxford's *Language Teaching Strategies: What Every Teacher Should Know* meets this need.

The book is divided into seven chapters followed by seven appendices. Chapter 1 presents a theoretical overview of the concept of language learning strategies, during which the author defines learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferrable to new situations" (p.8). It is these strategies, the author stresses, which enable a learner to use meaningful contextualized language and participate in realistic interaction with other learners through "active self-directed involvement" (p.1). She divides the strategies into two types: direct and indirect strategies. Direct strategies comprise memory, cognitive and compensation strategies. Indirect strategies include metacognitive, affective and social strategies. Chapters 2-5 discuss how these strategies are related to the four language skills and how they can be implemented in the general management of language learning. Chapter 6 describes techniques for assessing language learning strategies and contains an eight-step model for strategy training. Chapter 7 gives examples of strategy use around the world. The examples are divided into two general groups: explicit language learning strategies and implicit (simulation of) language learning strategies. Of the seven appendices, three are particularly important for strategy specialists: (1) Appendix B: Strategy Inventory for Language Learning; Version for English Speakers Learning a New Language; (2) Appendix C: Strategy Inventory for Language Learning; Version for Speakers of Other Languages Learning English; and (3) Appendix G: Strategy Applications Listed According to Each of the Four Language Skills.

One of the strengths of the book is that each chapter begins with a set of preview questions which activate the necessary background information for what is to follow. In addition, the book is full of helpful illustrations, tables, checklists and pictures. The schematic diagrams to illustrate the author's model of strategy

systems are especially clear and self-descriptive. Most importantly, the activities are well designed and well explained as to how they are related to the development of particular language skills.

Of the few weaknesses, at least two must be mentioned. Firstly, the author's model of strategy classification is quite arbitrary and even questionable on theoretical grounds, especially in light of current knowledge in experimental and cognitive psychology. However, since the focus of the book is on the implementation and practical aspects of strategies in classrooms and not on the theoretical aspects of the strategies themselves, the flaws in the model do not discredit the overall effectiveness of the work. Secondly, at times, the readers lose track of who the author's supposed reading audience is: teachers or the learners themselves? Subtitles such as "Centering Your Learning" (p.152) and "Arranging and Planning Your Learning" (p.156) (there are many more) are especially confusing in this regard.

Overall, the author has made an ambitious attempt to cover the existing research in areas as diverse as experimental, cognitive, educational, social and behavioral psychology. However, the approach is emphatically practical, as it translates research into manageable classroom activities. As such, the book represents a genuinely integrated approach to what the author calls "experiential language teaching." The emphasis is on the teacher's manipulation of the learners' introspection, the result of which is that the learners must have a strong awareness of what is going on in their own language learning process. This awareness, the author strongly believes, will make their language learning more effective and independent.

The book, in sum, can provide both teacher trainers and prospective language teachers with the basic knowledge of what is currently going on in cognitive strategies research as well as how research findings can be metamorphosed into group and individual language learning activities. Researchers interested in conducting strategy research and in assessing students' learning strategies will also find the book resourceful and handy since it contains not only theory but assessment tools as well.

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Literacy and Bilingualism by James D. Williams and Grace Capizzi Snipper. New York: Longman, 1990. 162 pp.

Reviewed by

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From amid the milieu of academics, teacher trainers and practitioners come Williams & Snipper with a well-written and highly readable report on the theoretical state of linguistic minority education in the United States, accompanied by their attempt to operationalize the findings for teachers of non-native English speakers. The organization of the book allows for each of the nine chapters to explore a research issue, such as defining literacy, explaining language acquisition or describing bilingualism, with the dual purpose (as stated in the preface) of providing the reader with an appropriate theoretical framework for meeting the needs of linguistic minority students as well as dispelling many of the misconceptions which surround literacy and bilingualism. It is not clear until the sixth chapter, however, that the authors' agenda also includes the presentation of a new teaching methodology, a goal intended to serve their final aim of having theory inform practice by providing concrete examples of how to develop students' literacy skills. The goals of the earlier chapters are served more effectively than those of the later chapters, however, as will be demonstrated below.

The book's most outstanding contribution to the field is its comprehensive review of the theories that have developed to explain aspects of bilingualism and biliteracy. Any reader versed in the literature on language learning cannot help but be impressed at the authors' strategically organized and critical review of many current researchers. In each chapter, Williams & Snipper not only delineate the many aspects of an issue, they also discover patterns or inconsistencies and demonstrate how a certain position can be argued to its logical conclusion, to the latest findings, or both. In Chapter 5, for example, they attack several misperceptions about illiteracy through an analysis of the relationship between language

and cognition. The authors introduce the topic by describing the position taken by Piaget (1974) that cognition precedes linguistic ability. They then follow other studies regarding language development which lead to Vygotsky's (1962, 1978) assertion that sociolinguistic environment influences thought, and they show how Olson (1977) adopted this argument to support the widespread notion that literacy is somehow necessary for abstract thought. The debate on this issue is brought to a close with Scribner & Cole's (1981) fairly conclusive finding that since literates have no cognitive superiority over illiterates, language may not influence cognition; there is also a final revelation, of which few are aware, that Olson (1987) has recently shifted his position toward the authors' own conclusions (pp. 68-75). Other similarly rigorous analyses succinctly synthesize the work of some of the "greats" who have investigated aspects of literacy (Heath), second language acquisition (Cummins, Krashen), bilingualism (Hakuta, Hymes) and sociolinguistics (Apple, Ogbu, Suarez-Orozco). Indeed, this thorough overview of the literature in the first half of the book is an excellent reference source for academics and classroom teachers alike.

That the book is understandable and useful to non-theorists should not go unnoticed. The language is not needlessly technical, and numerous definitions and explanations are provided. For example, *bilingualism* is concisely defined as "a person's ability to process two languages" (p. 33), after which all aspects of that processing -- acquisition/learning, proficiency, interdependence, and more -- are defined and analyzed until the reader gains an enlarged view of bilingualism as cognitively, contextually and socially constructed. The progression of the analysis is such that the reader readily acquires (vs. learns) a more complex perspective on each concept discussed.

The coherent review and evaluation of complex issues requires taking a stance, and these authors do so without equivocation. Their priorities are invariably humane and are best reflected in their position favoring the provision of bilingual education to linguistic minorities in the U.S.:

In a participatory democracy like ours, we take it for granted that education is not only a fundamental right of all people but a necessity for the country's survival. Thus it seems reasonable to conclude that the nation is obligated to provide the best

education possible to its nonnative English-speaking children. (p. 48)

While multiple views are presented as the authors trace the course of particular debates, eloquent statements, such as the one above, remind the reader that the author's obligation is to the often powerless minority people whose opportunities may depend on their recommendations. Williams & Snipper thus offer persuasive cognitive and social reasons for providing native language (L1) literacy instruction whenever and wherever possible and for re-examining transition to the second language (L2) as a goal of most American bilingual programs (pp. 50-56).

It is understandable that a work which encompasses multiple perspectives from linguistics, education, psychology, anthropology, sociology and politics might contain several inaccuracies. One of the authors' most frequent faults is to oversimplify. Luckily, however, the generalizations are relatively innocuous, such as their assertion that the State of California "has established high-level [educational] guidelines for every subject and insists they be applied to all students" (p. 49); I doubt most public school teachers in California are aware of such state-sponsored insistence! Another problem in the book, which may be attributable to reasonable limitations in the authors' professional backgrounds (they are a psycholinguist and a sociolinguist, respectively), is the occasional misunderstanding of cross-national research. America's apparent goal of monolingualism in the dominant language, for instance, is contrasted with the "bilingual" (read: egalitarian) goals of Canada and Sweden (p. 46) without regard for the unequal status of French in the former (see Safty, 1988) or the lack of tolerance for Polish or Turkish in the latter (Skutnabb-Kangas, 1986). Another example is the authors' claim that Modiano's (1968) work in Mexico demonstrates the negative effects of immersion on majority students; in fact, Modiano's data are based on students from indigenous language groups in Spanish-language classrooms. Unfortunately these and other misunderstandings detract from the credibility of several of the book's arguments.

The turning point of *Literacy and Bilingualism* occurs at Chapter 6 in which the discussion moves to and remains on teaching methodology. Williams & Snipper's decision to follow up the critical reviews of the early chapters with practical suggestions for instructors in the last four chapters results in a disjointed

presentation of their proposed new strategy, the "comprehensive approach" (p. 99), which utilizes grammar-translation and American fairy tales (or Hemingway and Steinbeck texts for older learners, p. 104) to strengthen minority students' biliteracy. Considering the authors' earlier criticisms of the grammar-translation method as tedious and dependent upon mere memorization (p. 91) as well as their charge that American curricula have failed to significantly broaden their base by incorporating minority and women's perspectives (p. 10), the "comprehensive approach" ultimately merits a highly critical reading.

As a synthesis of the most important issues in linguistics and education today, *Literacy and Bilingualism* is an exemplary and highly commendable work. Perhaps its less successful attempts to connect theory with practice raise the most essential question that readers must address: How can we best practice what we so effectively preach?

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Literature and Language Teaching by Christopher J. Brumfit and Ron A. Carter. Oxford: Oxford University Press, 1986. 290 pp.

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Literature and language learning have shared a long history. The academic teaching of language has long assumed the reading of literature as its goal. Perhaps this derived from universities being seen as seats for the study of the classic languages. No one approached Latin or Greek as a means of conversation; they were satisfactorily dead. When modern languages were introduced into the curriculum (one tends to forget how comparatively recent this phenomenon was in the face of tradition; American literature as a subject began in living memory at least of the more elderly), their teaching was patterned on the classical procedures -- translation and analysis. One need look no further than the most distinguished departments of modern languages to see this continuance. To the extent that German, Russian or French is taught, it is assumed that for those committed to the subject, acquisition is merely the necessary pre-requisite of literary study in the original language. That was the pattern for English teaching internationally, and one has observed pathetic students struggling to comprehend the subtleties of Wordsworthian vocabulary with the usable speech of a six year-old.

As usual it was American pragmatism that changed this situation. Confronted with a new political global role, American linguists, with the useful innocence that marks a Henry James character, observed the emperor was naked. With surprise it was perceived that distinguished international degrees in English did not advance the useful practice of verbal negotiation in the language. At that moment TESL, as opposed to teaching English abroad, truly

began! It was true that the British had spent centuries working abroad, but quite simply they had not tried to do the same (i.e., the most useful) thing: make the nonnative speakers talk!

From this more practical approach came the rejection of literature in ESL work in favor of more banal, but more useful, occupations, such as pattern practice. Cheerfully, in the famous idiom, the baby was thrown out with the bathwater. Since literature was effete and elitist, its language verbose and baroque, it had no place in useful language work. This decision was sustained by two sources extreme in all else but their opposition to the inclusion of literature. The linguists delved ever more deeply into the fundamentals of language not daring to approach the complexities of poetics. The literary critics dismissed utility and denied access to the holy grail of the great tradition to all except the dedicated specialists. So it went on for several decades. Then questions were raised. Students were not parrots and communication was set up as a goal beyond repetition. But what would students communicate and where would they learn to do this? Suddenly literature was recognized as a means by which native speakers extended their vocabulary and understanding. Might it not work for a nonnative speaker who often, unlike their teachers with bitter memories of high school, actually enjoyed literature? The idea that literature can and should play an important even exciting part in ESL classes is thus just, after some years of professional persuasion, being considered. It is this too lengthy background that brings us to the book under review.

Although published four years ago, this work is an admirable collection of essays that brings together observations from the most valiant and experienced teachers in the profession dedicated to working amongst the area of "interaction between language, literature and education." *Teachers* is a crucial word since the intention is to survey the entire field, the individual articles ranging from the somewhat abstruse theorizing of Guy Cook's "Texts, Extracts, and Stylistic Texture" to the most practical suggestions of Boyle's "Testing Language with Students of Literature in ESL Situations." The overall concept is presented in the introductory chapters. It owes a good deal, as do we all, to I.A. Richards, the great doyen of our trade. He devised a mode of criticism, which in America was called "The New Criticism," which made a close reading of a work a more significant exercise than the application of biographical or bibliographical information. Strictly speaking, the

ideas in his book *practical Criticism* did much to improve those dismal classes that proffer literature to native speakers, but it is obvious how naturally Richards' methodology meets the needs of the ESL student, and it is his principles which are developed and applied by the editors of this valuable collection. A close and attentive reading for meaning can teach many skills, above all the ability to disentangle ideas from prose and to express them in appropriate language. The underlying problem, too seldom recognized, is that literature is not only something other than ordinary writing, it does not readily lend itself to simplistic exercises. As Brumfit puts it, "we are not using literature simply as a servant of language." To use but not to use, that is the question for teachers, and they gain explicit support and guidance from these essays. At the level of generalization, S.J. Burke somewhat pedantically but usefully lists all the tasks that literature might perform, and the list is valuable for its extent, ranging from literacy to "humanitarian attitudes." It sounds grandiose but one would not wish to contradict. Literature can be "all things to all men" and perform a multitude of linguistic services in the classroom. Sandra McKay chooses to be more specific, and perhaps more openly practical, when, in a more pedagogic mode, she distinguishes between level of usage and level of use and suggests that both may be advanced by the reading of literature.

In addition, several essays deal with teaching in Africa. It is obvious that this geographical interest derives from the editors' particular personal experience on that continent, yet, although the conditions there are unique, they offer the kind of valuable generalizations that can only come from actual classrooms. In a related vein, Braj Kachru touches on an increasingly important issue: the development of new literatures in English as a second language (of which Africa and India are the most productive) and suggests the role that ESL literature should play in the ESL curriculum. This is an area that has barely been considered internationally, though such writing is increasingly incorporated in teaching within the countries of the various authors.

To me this is not a challenging book because it says all the things I have tried to preach for years, but it sustains my opinions with intelligent, specific reference and often ardent prose. It is hard to know whether this book would convince the die-hard who dismiss literature as an element marginal to language teaching. It does most certainly provide ammunition to the convinced and partly

convinced that would justify their often tentative experiments by reference to the judgment of people as distinguished as Michael Long, Christopher Candlin and H.G. Widdowson. With those on one's side, who is to fear? The book certainly ought to be read by everyone in the profession. From it teachers will acquire not only the assurance of a sustaining philosophy that justifies their decisions to incorporate literature in their program but also most specific guidance about how to do it efficiently. The book is written by people who know and respect literature so that not even the most arrogant critical specialist can condemn them as being superficial in their perception or deficient in their judgments. At the same time, it does accept that, in the ESL context, literature must be made useful, and it explains how that can be accomplished. If it reaches only into the hands of those already tempted to explore, it will even then constitute the beginnings of a very necessary revolution in the classroom, and how grateful learners would be for this.

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Contemporary Linguistics: An Introduction by William O'Grady, Michael Dobrovolsky and Mark Aronoff. New York: St. Martin's Press, 1989. 490 pp. Adapted from *Contemporary Linguistic Analysis*, published in Canada by Copp Clark Pitman, Ltd.

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Contemporary Linguistics surely deserves its title for a number of reasons. First, it is based not only on theoretical expertise but also on the experience of authors who have taught

introductory linguistics classes over the years. Secondly, while the rapid progress being made in linguistic theory seems to make it fairly difficult for any one volume to adequately cover all the areas of current research, particularly at the introductory level, the authors of *Contemporary Linguistics* have set this as their goal, and their effort is highly commendable, from the comprehensive selection of materials to the way they make difficult concepts accessible to neophyte readers.

With a total of 15 chapters, the book can be divided into the following major sections: Chapter 1 - language and the need for its analysis; Chapter 2 to 6 - various aspects of mainstream linguistic analysis; Chapter 7 to 8 - historical and comparative methods; Chapter 9 to 11 - psycholinguistics and applied linguistics; Chapter 12 to 13 - sociolinguistics; Chapter 14 - animal communication; Chapter 15 - computational linguistics. Following Chapter 15 is a comprehensive glossary with concise, up-to-date definitions of important linguistic terms. The information in the glossary, combined with the specific references in the general index, allows readers easy access to numerous topics. The book also includes a language index.

Most of the book's sections, especially the chapters on phonology and syntax, cover current issues which could not have appeared in introductory linguistics texts published prior to *Contemporary Linguistics*. Such topics include the new areas of syllable structure (pp. 70-85) and wh-movement (pp. 151-165), for example.

Chapters 11 and 15 are particularly significant for their detailed discussion of language-related disciplines which other introductory linguistics texts seem not to have given enough coverage until now. In Chapter 11, the authors show how second language (L2) acquisition differs from the learning of a first language (L1). The literature on the issue of age in L2 acquisition is reviewed in the first part of the chapter, while the second part discusses the effects of the L1 model (e.g., teacher or native speaker) and the environment on the L2 learner. The various stages in the acquisition of English as a second language are then discussed. The next sub-section, on two major approaches to L2 acquisition research -- contrastive analysis and error analysis, is followed by a discussion of language learning strategies which may involve conscious or subconscious processes. The discussion of the cognitive aspects of L2 acquisition outlines the possible effects

of aptitude, motivation, attitude and empathy. The final sub-section in this chapter summarizes various language teaching methodologies and considers what the choice of a particular method means to the teacher. *Contemporary Linguistics* certainly stands apart from other similar texts in its overview of second language learning and second language pedagogy.

Chapter 15, titled "Computational Linguistics," deals with the role of computers as a tool in linguistic analysis and outlines how the fields of phonetics, phonology, morphology, syntax, lexicology, semantics and pragmatics have benefited from the use of computers. The chapter also discusses how computers have been involved in the creation of systems which use linguistic information to enhance such language tasks as translation and text generation. Like the chapter on second language acquisition, Chapter 15 provides readers with more up-to-date information on an expanding field of inquiry than any other introductory linguistics text.

Now to a number of minor weak points in *Contemporary Linguistics*. First, although an introductory course in linguistics should mention discourse structure theory and text analysis, these are missing from the book. Chapter 12 deals with socio-cultural aspects of language and language use, but there is no mention of text-internal phenomena, such as cohesion, coherence, reference and schema (cf., Yule, 1985, pp. 104-114) or of research on spoken discourse. Surely even beginning readers need to know how the tools of linguistic analysis could be effectively used beyond the level of the sentence.

The second issue is whether an American adaptation of the Canadian edition is really worth the effort, given that the generative approach (which the authors claim to have adopted in the Canadian edition) is not marked by such distinctions of nationality. The authors should have perhaps told us exactly what difference it makes to linguistic (generative) theory, wherever it is practiced in the world, whether language examples are drawn from Canada, America or elsewhere.

Another technical problem has to do with the listing of names, such as Videia P. Guzman, Daniel Finer and others, under various topics in the table of contents without including any further information as to who they are and exactly how they contributed to the book. If they did not actually write particular chapters, what was their precise role in the compilation of the materials?

As an introductory linguistics text, one expects the goal of *Contemporary Linguistics* to be to get people started in the field of linguistics and related disciplines. In spite of a few minor problems, the authors have not only achieved this goal in a more-than-adequate fashion, they have also demonstrated that an introductory text can be comprehensive enough for the non-initiated to become acquainted with the complexities which the study of language entails. For the practicing linguist, *Contemporary Linguistics* could be a good reference source. For the linguistics teacher, it should serve as an excellent course text. For the student, it is particularly helpful because of the straightforward, explanatory style the authors have adopted. In all, *Contemporary Linguistics* fills a major gap, since state-of-the-art introductory linguistics texts are not plentiful on the market.

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Microcognition by Andy Clark. Cambridge, MA: MIT Press, 1989. 226 pp.

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In the true spirit of integrative, interdisciplinary cognitive science research, philosopher Andy Clark seeks to call a truce to what he aptly refers to as the "holy war" of cognitive modeling. In complex matters of the mind, it is Clark's contention that since the brain may simply need and use more than one mode of information-

processing to perform such tasks as comprehending and producing human language, a more integrative theory of cognition is therefore needed. In *Microcognition*, Clark introduces the reader to some of the major issues and conundrums of 20th-century philosophy and cognitive science: What is the mind, and what is its relationship to the brain? How does the mind work, and how does it affect behavior? How do seemingly abstract entities, such as personal beliefs and desires, influence bodily movement, and how might sentential propositions actually be instantiated in "neural stuff?" Clark gives us a quick overview of the modern answer to the mind/body dilemma: the computational model of mind. Most interestingly, he brings us into the heart of the currently lively debate between two competing computer models of the mind: the "classical" symbol systems of AI (Artificial Intelligence) and the "new connectionist movement," also known as PDP (Parallel Distributed Processing).

This new debate in cognitive science is reminiscent of the heated discussions between Chomsky and the behaviorists some 30 years ago. One central issue, now as then, concerns the systematicity of thought and language and the explanatory adequacy of a generative grammar for language, as opposed to a 'subsymbolic,' or associationist, view of both cognition and language. The symbolic computational approach of classical AI, in fact, represents the mathematical-syntactic approach of Chomskian generative grammar *par excellence*, since it conceptualizes the mind as a type of formal logic machine with mental rules operating on abstract, symbolic representations. The subsymbolic connectionist approach, on the other hand, operates without rules and without symbols. It emphasizes the "messy, biological" substrate of cognition, rather than the rational, logical nature of thinking, and uses a computational architecture closer to the distributed, parallel nature of processing in the brain, rather than the conventional sequential architecture of a digital computer. Clark's thesis is that cognitive modeling may actually require both classical and connectionist 'cognitive architecture' to model two different kinds of information processing: for some tasks, our thinking does appear to be slow, deliberate and serial, while for others, such as visual perception, it is fast, automatic and parallel.

Microcognition is divided into two parts: the "mind's-eye view," which describes classical AI and some of the philosophical criticisms against it, and the "brain's-eye view," which focuses on

the "brain-like" connectionist systems that process information as spreading activation over a connected network of neuron-like units. I find the second half of the book to be the most interesting, for it describes and compares PDP systems with classical models and presents a case for "the multiplicity of mind," that is, a hybrid cognitive architecture. One of the many examples of PDP models that Clark describes is the well-known past tense acquisition model of Rumelhart & McClelland (McClelland, Rumelhart & the PDP Research Group, Vol. 2, 1986). In addition, he also describes the representation and learning of *schemas* in PDP networks as well as how the psychological mechanism of generalization naturally derives from connectionist processing. Other topics include the flexibility and robustness of PDP systems, or their ability to "degrade gracefully" in the face of system damage or incomplete input, and the many architectural advantages that these models exhibit over a sequential symbolic processor for some tasks, such as low-level perception and motor control. For other tasks, such as conscious problem-solving and language production, Clark suggests that a classical architecture may also be required and may be much more than just a "useful approximation" of deeper psychological explanations.

As Clark points out, those most committed to a "unitary model of mind," whether connectionist or symbolic, all too often oppose each other from fiercely competing and mutually exclusive theoretical poles. Clark, however, begins with a "multiplicity" assumption, and, borrowing a term from computer science, argues for multiple "virtual cognitive architectures" implementing different aspects of cognitive functioning. In light of persuasive arguments for cognitive modularity by theorists such as Chomsky, I am sympathetic to Clark's spirited defense of integrative modularity. Theorists committed to a more holistic view of an undifferentiated neural network will, of course, find Clark's conclusions more controversial. As a philosopher, however, Clark does not present us with an explicit hybrid model, so in the long run it will undoubtedly be the empirical models themselves that will best inform this debate.

I find Clark's argument nicely illustrated, though, in his example of the past tense acquisition model. In the developmental literature this is usually described as a three-stage process of rule-formation, while in the connectionist framework the same process can be modeled completely without rules, and even without

symbols, such as "-ed" or verb roots. Clark argues that the first level of past tense learning may be implemented by a pure PDP mechanism of statistical induction, but, in the transition to the next level, the learner then organizes and restructures her internal representations, creating symbols to represent sets of distributed activity patterns. This results in the second "stage" of systematic overgeneralization of regular past endings. In transition to the third stage, a PDP mechanism of fine-tuning is again implemented, and finally, in the third stage, the learner attains "the coexistence of a pure PDP mechanism of lexical access and a nonlexical mechanism implemented with PDP" (p. 172), that is, the normal adult system of past tense.

Another important point that Clark discusses is the notion of "levels of explanation." Clark argues that several levels of analysis intervene between behavior and its physical implementation, whether in the brain or in computational systems. Just as we talk about levels of structure and function in the brain (molecular, cellular, circuitry, networks, systems, etc.), he claims that we must distinguish among levels of computer modeling: from the lowest level of the numerical specification of the input, to the subsymbolic level, to the partitioning of abstract representational space, to the conceptual level and, finally, to the folk-psychological level of belief and desire talk. Thus, in addition to multiple architectures, Clark argues for a multiplicity of levels of explanation, independent of what the architectural facts may turn out to be.

In *Microcognition*, Clark presents some of the contemporary issues of cognitive science to the non-specialist reader in a straightforward and comprehensible way. The book provides a good introduction to questions that a reader might want to explore more deeply in the vast literature of cognitive science. What I find especially appealing is Clark's attempt to integrate apparently opposing approaches into a single complex puzzle. The book is also clearly written and witty, making it truly enjoyable as well as informative, and it is very useful, I think, for second language researchers interested in the mind and in current issues of cognitive modeling.

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Cheryl Fantuzzi is a Ph.D. student in applied linguistics at UCLA, specializing in second language acquisition. Her special interests include research in cognitive science and developmental psycholinguistics.

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Announcements

At the end of Winter Quarter, 1989, Professor Evelyn Hatch retired and became Professor Emerita in the Department of TESL and Applied Linguistics at UCLA.

To honor Evelyn's many contributions as a scholar, researcher and teacher, her colleagues, friends and students (current and former) established a fund which, beginning in 1991, will reward annually the most outstanding UCLA student research paper in Applied Linguistics.

Colleagues who would like to join in honoring Evelyn's work are hereby invited to send a tax-deductible contribution to the Evelyn Hatch Award Fund. Checks should be made payable to the Regents of the University of California and should be directed to Ms. Chris Musselman, Department of TESL & Applied Linguistics, UCLA, 3300 Rolfe Hall, Los Angeles, CA 90024-1531.

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